THE TIMELY AND TIMELESS SYNAGOGUE:

A Synagogue for Washington Square, Brookline, MA

by

Paul J. Orentlicher

Bachelor of Arts
Queens College of CUNY
Flushing, New York
1983

SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE DEGREE
MASTER OF ARCHITECTURE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

JUNE 1987

Signature of the author _____
Paul Orentlicher
Department of Architecture
Feb 10, 1987

Certified by _____
William Hubbard
Assistant Professor of Architecture
Thesis Supervisor

Accepted by _____
Julian Beinart
Chairman
Department Committee on Graduate Students

THE TIMELY AND TIMELESS SYNAGOGUE:
A Synagogue For Washington Square, Brookline, MA

by
Paul J. Orentlicher

Submitted to the Department of Architecture on February 10, 1987
in partial fulfillment of the requirements for the Degree of
Master of Architecture

ABSTRACT

The synagogue has always played a crucial role in the life of the Jewish people. It is the embodiment of a religion which dates its proud past as stemming from the beginning of creation. Nevertheless, the passing of time has not diminished the people's fervor in the observation of age-old customs, traditions, and laws. However, the Jewish people are flexible enough to acknowledge the changes inherent in the passing of time. This concept of time, a respect for the past and an awareness of the present with a projection for the future, is paramount in the architectural development of the synagogue. Throughout the years, synagogue planners have considered this melding of the present with the past, modernity with antiquity as a reflection of the needs of its people at a given time.

Fundamental to the design of my synagogue is what I consider its three-fold purpose: a House of Prayer, a House of Study, and a House of Assembly -- all coalescing to serve the spiritual, intellectual, and social needs of the people. It will consider the necessity of continuity without sacrificing the need for versatility and adaptability, all within the parameters of its utilitarian needs. While ancient symbols, traditional artifacts, and alter objects should be visible, even that which is not visible but revered even more will be lovingly, albeit subtly, evident. Thus, G-d's presence will be manifested within the symbolic design concepts, the lofty structural innovations, the light and shadow imagery. The most modern artistic and architectural techniques will be utilized to create a beautiful, utilitarian, versatile synagogue, adaptable to the changing needs of its community. Thus, this synagogue can play a most important role in keeping our religion timely and timeless.

Thesis Advisor: William Hubbard
Title: Assistant Professor of Architecture

ACKNOWLEDGMENTS

Every undertaking in any discipline assumes the physical and moral support of others. This thesis has also generated such benefactors whose loyalty and contributions were felt in diverse ways: criticism, suggestions, cooperation, encouragement, and enthusiasm.

I am indebted to the writers whose works I have consulted.

For advice and insight, my thanks to Rabbi Paul Hait, executive director of the New York Board of Rabbis, Rabbi Alan Teparow of the Synagogue Council of Massashusetts, and Rabbi Shevitz of the Hillel organization at M.I.T.

For his moral support and expertise, I thank Imre Halasz, who was the catalyst in an earlier design studio course for this undertaking.

A special thanks to Bill Hubbard, my advisor, for his tremendous enthusiasm and ongoing support of this project -- for sharing his intellect, energy, and ability. For this wholehearted giving of himself, I will be forever grateful.

For their appreciated encouragement, my thanks to my dear friends, Mr. and Mrs. Irwin Katz, Donna Gorshel, and numerous colleagues in the department.

No student in this department can traverse the daunting maze of graduate requirements without encountering the kindness and sympathetic encouragement of Linda Okun, Leon Groisser, and Karen Fosher.

Finally, I am indebted beyond words to the members of my family for their total immersion in my success with this undertaking. Without their complete belief in my ability, their love and encouragement, this thesis would not have been possible. I salute, with loving gratitude, my wonderful parents and all the members of my family: Allen, Rivi, Harriet, Itsy, Gary, Carol, Rona, Sheera, Eytan, Adam, Dalia, Josh, Tamar, and Talia.

Dedicated to

my

Mom and Dad

"Hear, my son, the instruction of your father, and forsake not the teaching of your mother." (Prov; 1:8)

TABLE OF CONTENTS

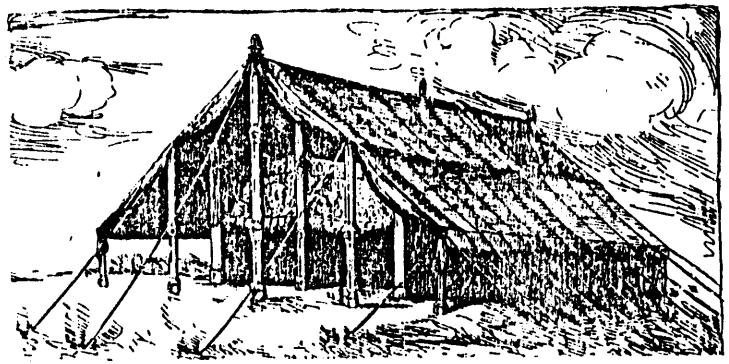
"AND LET THEM MAKE ME A SANCTUARY; THAT I MAY DWELL AMONG THEM." (Exodus 25:8)

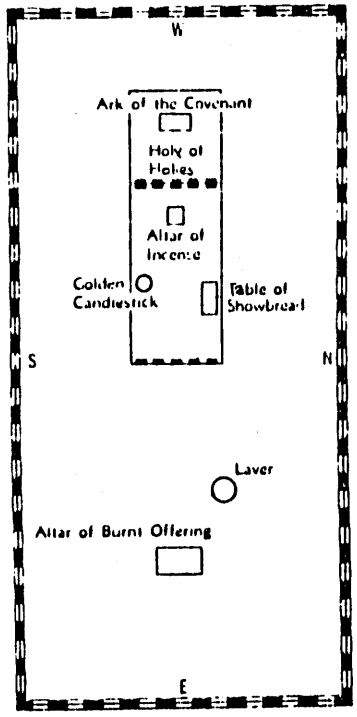
THE TIMELY AND TIMELESS SYNAGOGUE

Time is an illusive and contradictory entity, for mankind acknowledges that time marches on and that time stands still. Surely, no better example of this dichotomy exists than in religion, in general, and in the Jewish religion, in particular, where the Jewish people still observe *Torah* precepts and live by a code of laws enunciated approximately four thousand years ago. In fact, the Jewish calendar, followed to this very day, dates its past as stemming from the beginning of creation and, consequently, its calendar year is presently *5747.* Thus, the Jewish people lives simultaneously in both the *present* and the *past.*

This concept of time, melding the *present* with the *past,* modernity with antiquity, is reflected in the development of the Jewish house of

"There is one timeless way of building.
It is thousands of years old, and the same today as it has always been.
The great traditional buildings of the past, the villages and tents and temples in which man feels at home, have always been made by people who were very close to the center of this way. It is not possible to make great buildings, or great towns, beautiful places, places where you feel yourself, places where you feel alive, except by following this way. And, as you will see, this way will lead anyone who looks for it to buildings which are themselves as ancient in their form, as the trees and hills, and as our faces are."
(Christopher Alexander, The Timeless Way of Building, Oxford University Press, New York, 1979, p7)





A suggested plan of the Tabernacle and its courts

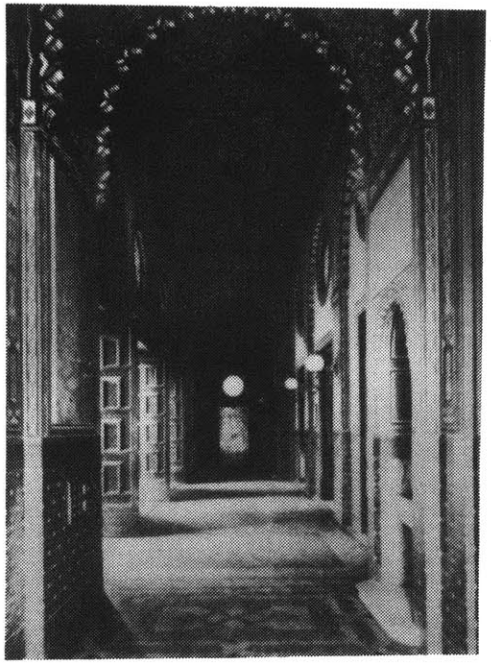
worship--the *synagogue*. Emerging from a distant past when their forefathers escaped from the bondage of Egypt to begin their weary trek to the Promised Land, this ancient people recognized the *tabernacle* or the *sanctuary* as the primary gathering place to serve their religious, social, and educational needs. Indeed, it was the basis for G-d's commandment to them: *"Let them make me a sanctuary that I may dwell in their midst."* From that day, the synagogue has always played a crucial role in the life of the Jewish people.

Thousands of years have passed, and time has seen many changes in the concept, structure, and use of the synagogue from its early days as a tabernacle or sanctuary in the wilderness. While some of the earliest houses of worship appeared simplistic in light of today's more polished and sophisticated versions, and while some were small

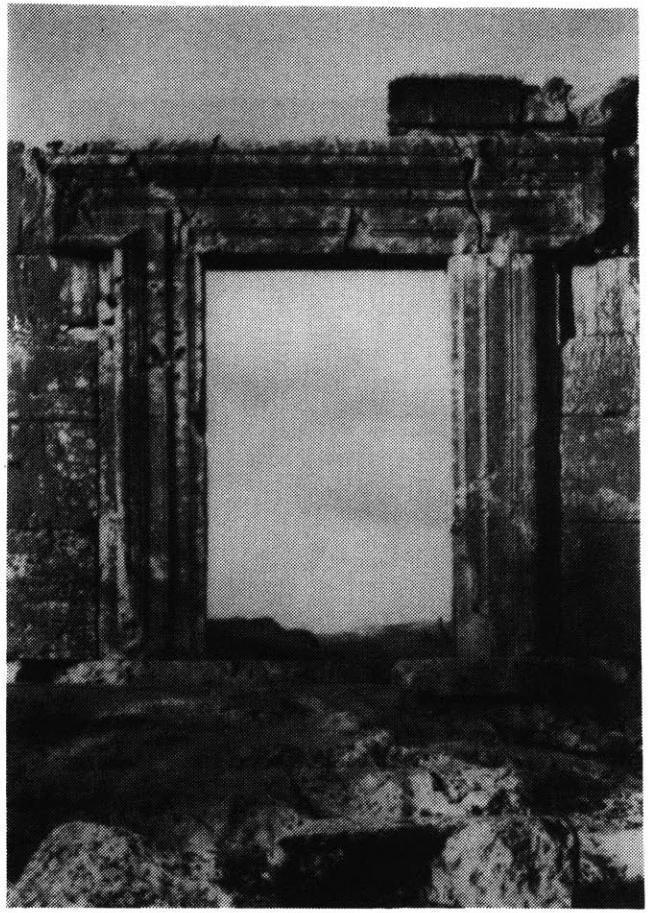
in comparison to other later and present structures, all were designed to serve the changing needs of their existing communities, and each was a reflection of its time. Only one element has not changed with the passing of time: *the importance of the synagogue in the life of the Jewish people.*

How, then, can this importance be translated in an architect's blueprint today?

As the son of a Rabbi, I am deeply and consistently involved with both his synagogue and synagogues in general. As a result, I am aware of the purpose, function, and day-to-day operation of today's synagogues. In addition, my architectural leaning has added another dimension to my view of the synagogue, and I am, therefore, now cognizant of many theoretical elements in addition to utilitarian ones: *design, structure, aesthetic*



Of all the synagogues built in the Moorish style the interior of the Florence synagogue in Italy is certainly the most opulent and the most distinguished. This view of the vestibule gives an idea of the extravagant decoration of the prayer-hall.

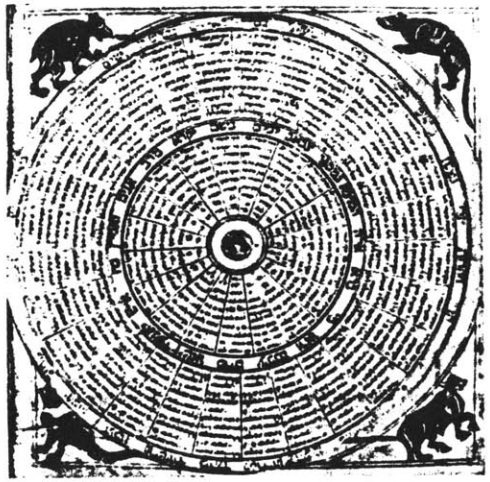


Meiron, Israel. The facade of the synagogue built on a hill-top in Galilee by Shalom son of Levi in the fourth century. The monumental doorway faces Jerusalem.

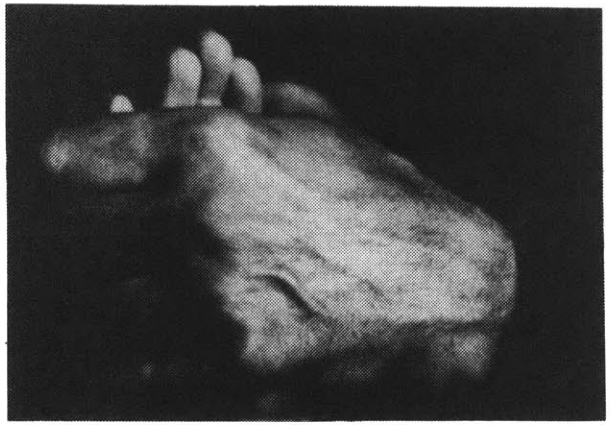
beauty, symbolism, the depth of simplicity, form, spacial order, and the challenges of complexity, innovation, and adaptability, among others. It has also generated a respect for *time* --the past, the present, and the future--all coalesced to create the quintessential element of a synagogue with a soul: *timelessness.*

To accomplish this, the architect must take into account the necessity of continuity without sacrificing the need for versatility and adaptability, all within the parameters of the synagogue's utilitarian needs. In other words, he must meld the past with the present and still be cognizant of the future. He must recognize the need for stability, yet not overlook flexibility. To do this requires, so to speak, both clear and direct *20/20* vision with an occasional surfacing of near-sightedness and far-sightedness.

The structure, in its architectural rendering, should be the embodiment of *time* --the way the Jewish people calculate time by living simultaneously in the past and in the present: in the years *5747* and *1987.* And because the Jew is always aware of his proud past--it is the very marrow of his bones--what more fitting place exists to remind him of his great legacy than the synagogue? Consequently, every effort should be made to meld antiquity with modernity. Ancient symbols, traditional artifacts, significant commandments, Psalms, and prayers, and alter objects should be visible and blended tastefully within the framework of the new. Above all, even that which is not visible but revered even more must be lovingly, albeit subtly, evident. Thus, G-d's presence should be manifested, not in statues which are forbidden, but felt within the symbolic design concepts, the lofty structural innovations, the light and shadow imagery.



A thirteenth-century Jewish calendar



In short, the most modern artistic and architectural techniques should be utilized to create a beautiful, timely, utilitarian, versatile synagogue, adaptable to the changing needs of its community. But the completed structure, modern as it is, must acknowledge the rich history of the Jewish people. Thus, as we sit within its sacred walls and look about us, we feel G-d's greatness without seeing Him; we must hear the sage but voiceless advice of our Prophets and Kings; we must understand why we are a unique people, and we must appreciate without conflict or apology the beauty of living in two time-zones simultaneously: the *present* and the *past,* as from time to time we direct our gaze toward the future. If we do, the synagogue will have played a most important role in keeping our religion - *timeless.*

"As my father planted for me, so do I plant for my children." (Talmud Tuanit, p23)

IDEOLOGICAL CONCEPT OF THE DESIGN

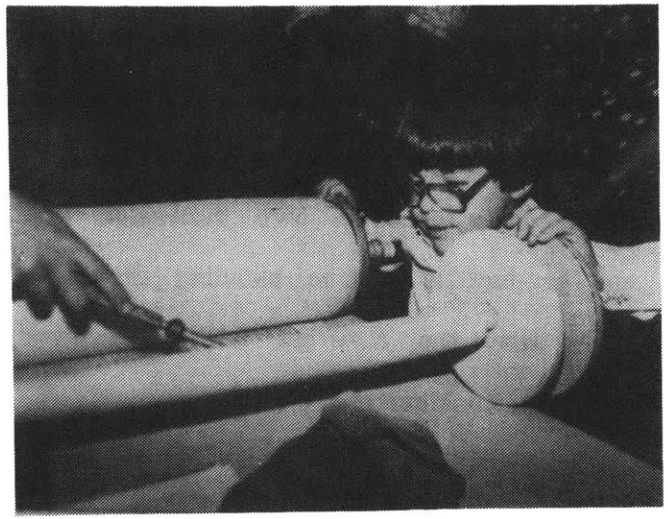
Having established the importance of the concept of *time* - the past, the present, and the future in Judaism, having acknowledged the synagogue as the lofty embodiment of time, and having recognized the uniqueness and importance of the synagogue as both timely and timeless, we must ask ourselves the following: How can the new synagogue, its location, structure, and design, best exemplify this Jewish concept of time -- *change within continuity* -- while remaining both youthfully vibrant and respectably ageless?

By turning to Judaism's very *r'aison d'etre* (reason for being): its greatest strength -- *its people.* First and foremost therefore, must be a realization that just as the needs of the people evolve and change, so, too, do the laws and customs change, albeit even the most minimal. Similarly, the evolution of the synagogue is a reflection of the *needs* of its people at a given

time. This catering to the needs of the people, has brought about numerous divisions and sub-divisions within Judaism. Consequently, today's synagogues reflect these multi-faceted differences.

One of several important concepts fundamental to all synagogues regardless of ideology is the one which views the synagogue's purpose as three-fold: *a house of prayer, a house of study, and a house of assembly* -- all coalescing to serve the *spiritual, intellectual, and social needs* of the people.

If its *people* are Judaism's building blocks and the source of its strength, then the *family unit* -- parents and children -- is the mortar that binds it into a cohesive force. Together they constitute an indestructable bond of growth within continuity. It is this concept which fuses the generations. *"As my father planted for me, so do I plant for my children."(Talmud Tuanit,p.23).*



Thus, while the Jewish religion is itself *timeless,* its willingness to adjust to the needs of its people keeps it vibrant and *timely.* Consequently, customs and traditions are lovingly maintained from generation to generation, from parent to child. Nevertheless, those same customs and traditions may be even further enhanced and made even more meaningful as they are re-shaped and adapted by each subsequent generation to satisfy their own needs. Therefore, while each generation continues to maintain that which came before it, it simultaneously adds its own dimension to it. The end product is a true blending of the old with the new, the *timeless* with the *timely,* growth within continuity.

How, then, can one translate this intergenerational concept in the form of a *timely-timeless synagogue?*

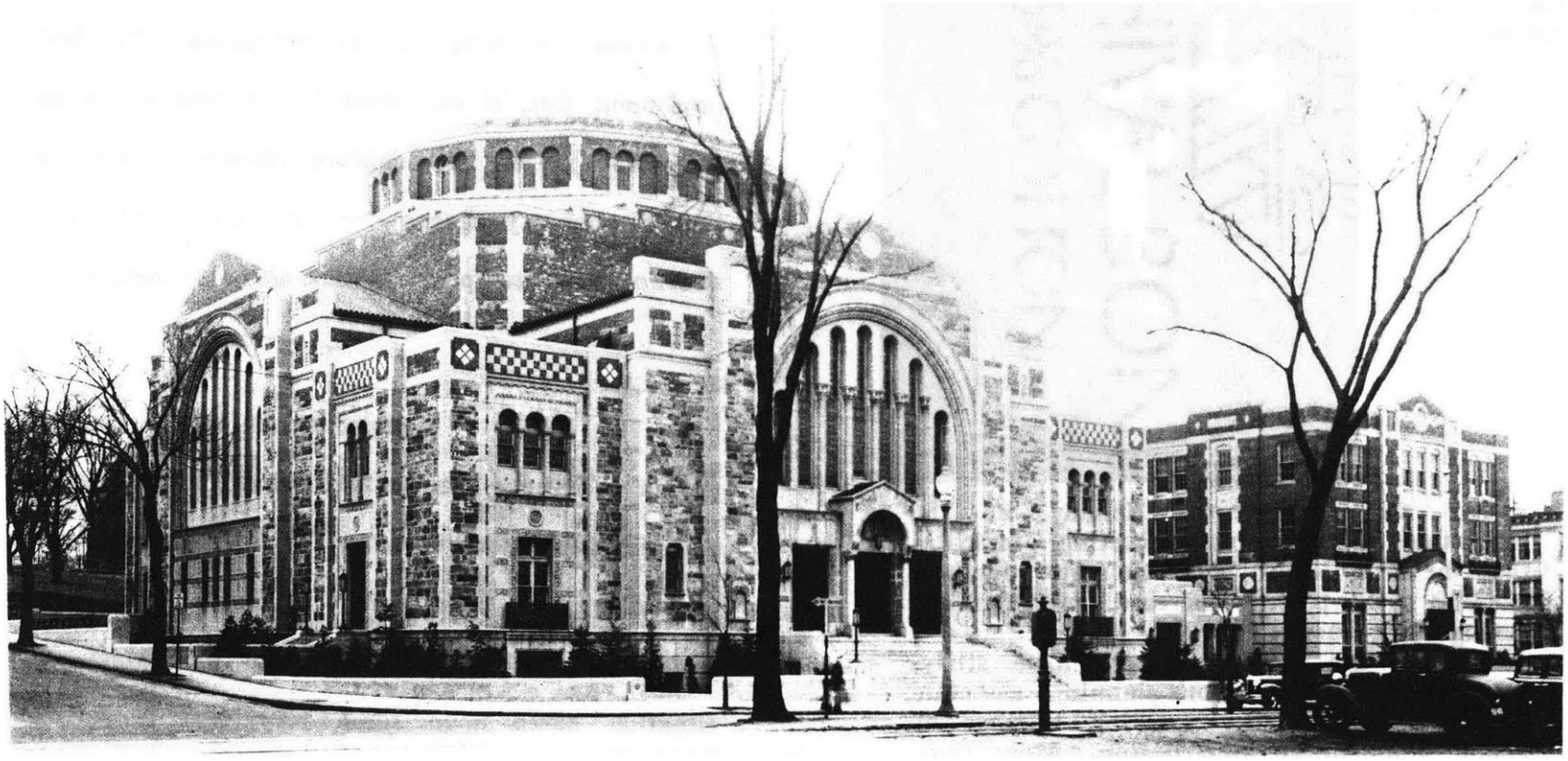
". . . and thou shalt teach them diligently unto thy children, and shalt talk of them when thou sittest in thy house, and when thou walkest by the way, and when thou liest down, and when thou risest up"

(A verse from the Shema, Deuteronomy 6:7)

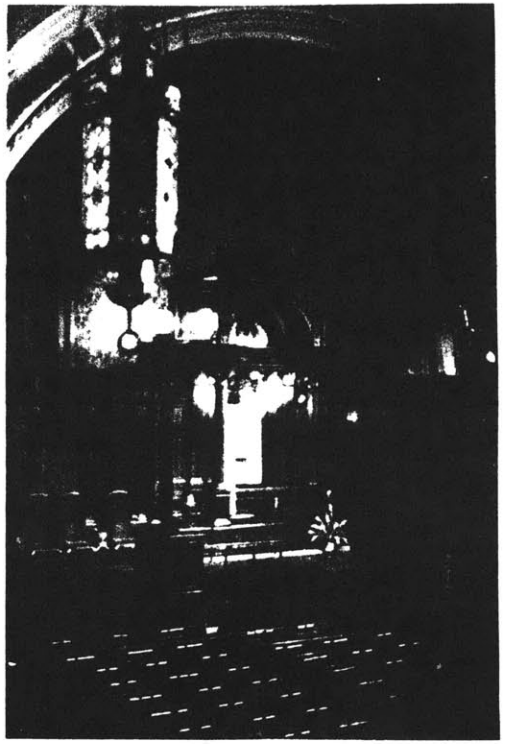
THE PLAN BEHIND THE CONCEPT

Since the generation concept in general, and the parent-child-motif, in particular, are crucial to the *timely-timeless* and *continuity-growth* theories upon which this design project is based, it was essential that a *parent-child,* so to speak, synagogue program be formulated. How would this *parent-child* concept be developed into a viable design program? Also, how would such a synagogue reflect modernity without sacrificing antiquity, and maintain ageless traditions without overlooking the needs of a new generation?

It was decided to search for a historic synagogue of great dignity and stature, one which adheres to tradition, is aesthetically and spiritually uplifting, and satisfies the intellectual and social needs of its congregants. After much searching, the *parent* synagogue was located: *Temple Ohabei Shalom,* founded in 1842 and presently located on Beacon Street in Brookline, Massachusetts since 1925, as a *Reform congregation.*



TEMPLE OHABEI SHALOM 1925-
Beacon St., Brookline, Mass.



Interior of Temple Ohabei Shalom showing Bimah, ark, and some seating.

The study, presented Sunday at the federations 91st annual meeting, indicates that the local Jewish population now numbers 228,000 a 13 percent increase from the last demographic survey in 1975.

One of the key findings in the study, authored by CJP senior planning associate Sherry Israel, is the growing number of young Jews in Greater Boston. More than 50 percent of Boston's Jewish adult population is under 40, including an estimated 32,000 undergraduate and graduate students living in off campus housing. *(Lawrence Harmon, The Jewish Advocate, Sept 25,1986,p1)*

To implement the second half of our inter-generational plan, namely the *child* motif within our imaginary boundaries, required that we locate a site within reasonably close proximity to its already existing *parent* synagogue. To best implement this, it was decided to choose a site on the same major thoroughfare *(Beacon Street)* as the mother synagogue -- *an umbilical cord attachment,* so to speak, to our *child* synagogue.

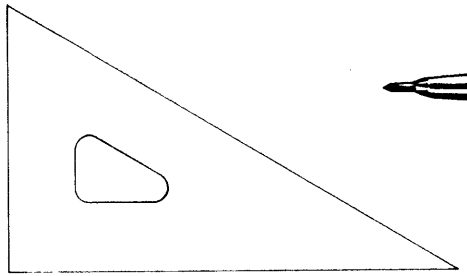
In order to implement our initial concept that a synagogue can be both *timely* and *timeless,* can embody *growth within continuity,* and can exemplify the child half of the *parent-child motif,* it was decided to create an imaginary situation based upon some very real trends in Jewish life. These include the tremendous growth of the Boston area's young adult (between the ages of 20-40) population.

In line with this trend is the documented evidence that the Brookline Jewish community has shown continuous growth. Another trend crucial to this project is a definite and obvious return by young Jewish adults to *Orthodoxy.* Furthermore, in the area of Jewish education, there is now a very apparent trend toward the private day school and *yeshiva* high school. This is an all day Jewish religious and secular school. Other trends which will be clarified further on include a *Mikvah, separate seating,* an *Eruv,* and a *ritual washing area,* among others.

As a result of the tremendous growth of the young adult population, coupled with the above-mentioned trends and their additional structural and religious requirements, a new synagogue is definitely called for. Since many of these young adults who have ballooned the Brookline

Jewish population are, in our partially imaginary situation, to literally be the progeny of the members of *Temple Ohabei Shalom* (our parent Reform synagogue) they still retain a strong *maternal* bond with their *parent* synagogue. However, since ideologically they now embrace *Orthodoxy* with all its special requirements, it is essential that they have their own synagogue without a total break from their *parent* institution. This can best be implemented by creating a uniquely designed synagogue, one which will satisfy the needs of its young adult congregation while it blends many of the much loved esthetic, inspirational, and functional elements into its design. Thus, the blending of modernity and antiquity.

ABOUT THE THESIS



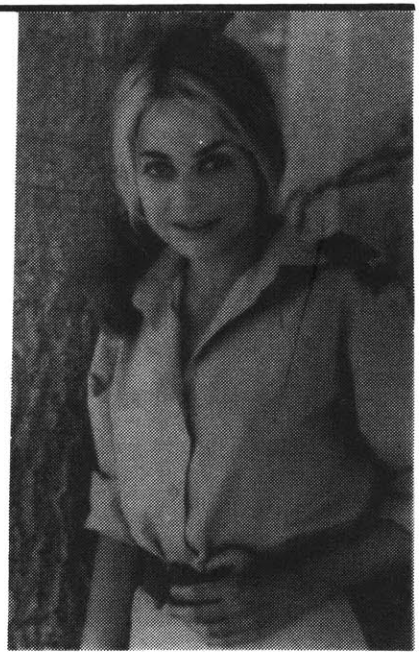
The development of any architectural design project is inevitably influenced by many of the following significant elements, among others: *political motives, historic events, economic limitations, construction techniques and available materials,* as well as *site limitations, zoning laws and an avalanche of design and construction regulations.* However, a thesis, by its very nature, allows one to focus on one's own design objectives without being overly concerned with all of these elements, many of which may not necessarily be essential. To try and develop a thesis concept from the vast array of religious, cultural, and historic information, as well as the interplay of architectural components, is like squeezing five fingers into a four-fingered glove: it can be done, but something won't fit comfortably. Mindful of the difficulty of covering so many bases adequately, this thesis will rely heavily upon diagrams, photographs, and final drawings to express the many factors and influential ideas that were essential in shaping the final design.

"Thus says the Lord G-d: Although I removed them far off among the nations, and although I have scattered them among the countries, yet have I been as a little sanctuary in the countries where they are come."
(Ezek. 11:16)

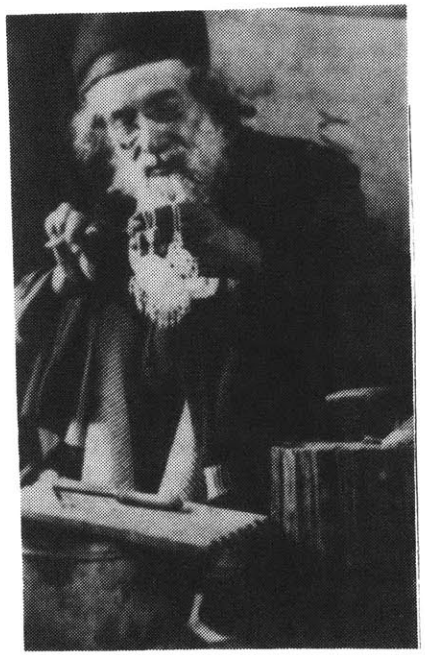
A BRIEF HISTORY OF THE SYNAGOGUE

Any design project which undertakes as its thesis a Jewish house of worship must of necessity focus with great seriousness upon the State of Israel. Moreover, any design project of a house of worship, in which its underlying theme is *time* and which studies, reviews, and researches the origin and purpose of the synagogue from its earliest Biblical days, must include Israel as its very foundation. This tiny country is the very heartbeat of an ancient people, and its rich history, its culture, its *past* and its *present,* its symbols, its synagogues, its atmosphere, and the very air that one breathes there engenders passion and bespeaks *time and timelessness.*

In order, therefore, that I might carry out a major portion of my investigative research, I lived in Israel for the summer. I visited various synagogues, museums, libraries, and research centers in Israel and informally interviewed Rabbis, their congregants and students.



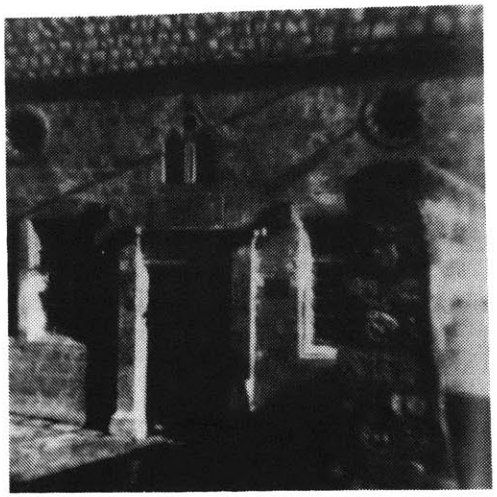
A second Lieutenant in the Israeli Air Force, this young woman helps to defend Israel from its enemies while creating a safe haven for the "ingathering of the exiles."



Only in recent generations has the occupation of Rabbi become a fulltime profession. In former times, rabbis had other careers and performed their rabbinic duties separately.

The Wailing Wall, ca. 1900.

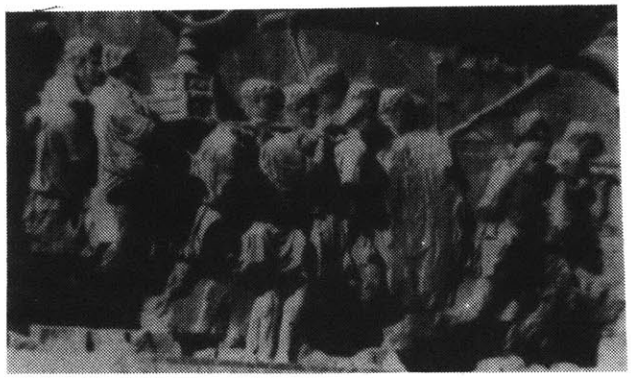
In addition to viewing several synagogues, both ancient and contemporary, my itinerary included touring the area around and under the Temple Mount in Jerusalem as well as a trip to the ancient Ari synagogue in Safad dating to 1572. Some of the information compiled on this trip is presented here as a brief history of the synagogue.



The Ha'ari synagogue, one of the surviving houses of worship at Safed built during the period of Ottoman rule when this historic city of Upper Galilee, a center of mystical Jewish teaching, was the home of many celebrated Rabbis.

The temple, in Hebrew *bet ha-mikdash,* literally 'The House of Sanctuary', was the spiritual center of the people of Israel and served as the hub of religious life.

After King Solomon's Temple was destroyed, a Second Temple was build seventy years later to replace and resume the sacred temple observances. Many Jews from Babylon and Egypt were able to make occasional pilgrimages to the Temple in Jerusalem, but in their scattered communities in foriegn countries the children of Israel experienced the need for an accessible center of worship. Therefore, the synagogue, which fulfilled this need, grew in importance in the Diaspora.

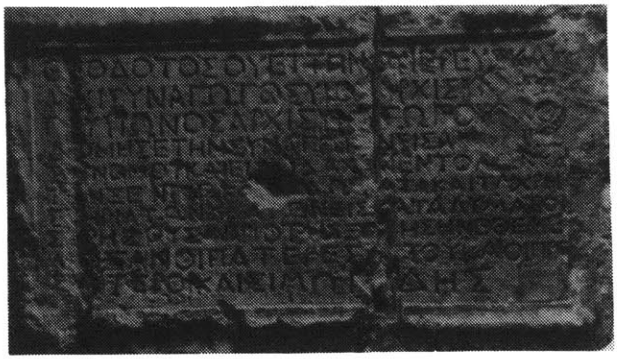


Detail of the Triumphal Arch of Titus, in Rome, depicting the victorious return of the Imperial army with Jewish slaves and sacred loot from the Second Temple of Jerusalem.

"However distant its beginning, the roots of the synagogue are planted deeply in the communal and religious history of the Jewish people. Today it is their most original creation, the mainstay of their cohesiveness, assuring the survival of their group, their cultural identity, and their historic consciousness. It answers their social, religious, communal, and educational needs. Philo, speaking about synagogues in the first century, put it thus: "What are they but schools of wisdom, and temperance, and justice and piety and holyness and even virtue, by which human and divine things are appreciated and placed upon a proper footing (Philo, Life of Moses, translated by C. D. Young, London, Vol.iii, p27.)."
(Dr. Abraham Kampf)

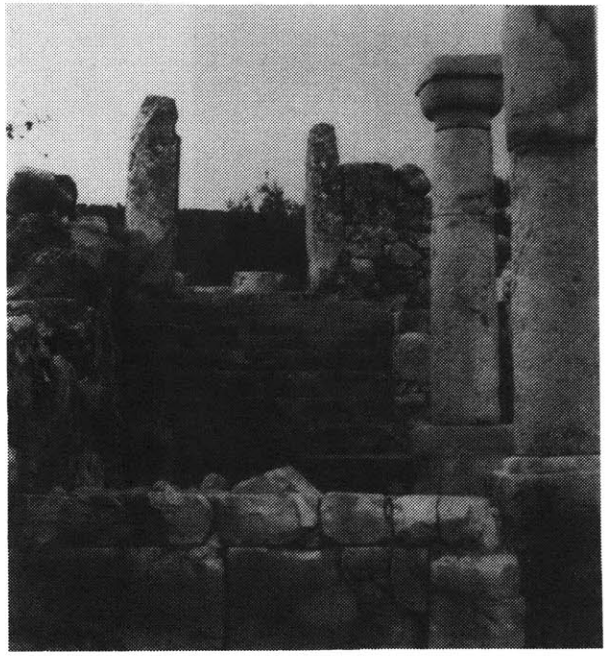
From the synagogue's inception, it was and continued to be a creation of the people. During the destruction of the Second Temple, the synagogue responded to the needs of the people by growing and developing in its function as a place where the sacred texts were read. The people could gather on the Sabbath to hear G-d's word and to pray. At the same time it grew as a communal center not only of the religious but also of the social, cultural, educational and sometimes even the commercial life of the people. Eventually the synagogue has become to the community what the home is to the individual.

Many of the photographs and accompanying documentation can be found in Louis Jacobs' *The Book of Jewish Belief,* and Carol Krinsky's *Synagogues of Europe.*

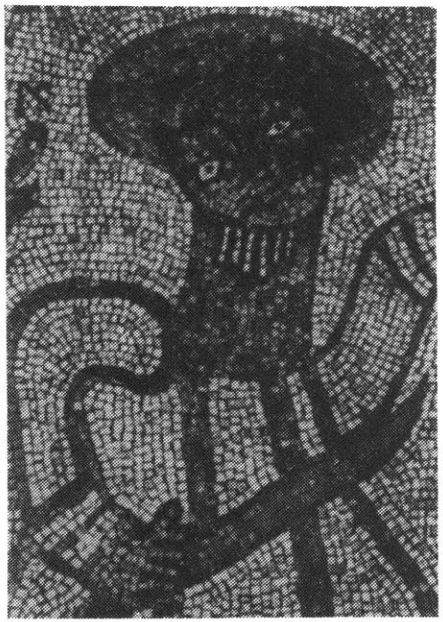


Inscription from a synagogue in Jerusalem which functioned prior to the destruction of the Second Temple in 70AD, naming the builder and the chief of the synagogue.

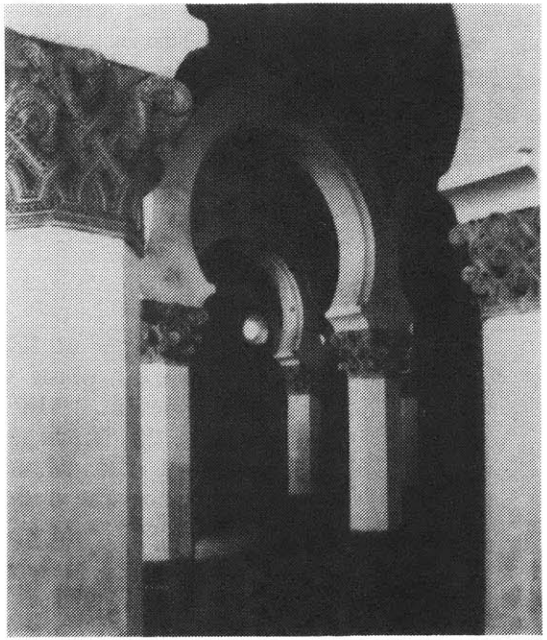
"Theodotos son of Vettenos, priest and archisynagogos, son of an archisynagogus, built the synagogue for the reading of the law and for the teaching of the commandments; furthermore, the hospice and the chambers and the water installation for the lodging of needy strangers. The foundation stone thereof has been laid by his fathers and the elders and Simonides."



This synagogue at Khirbet Shema was revered as the burial place of the first century sage Rabbi Shemai. On this hill, according to tradition, the Massiah will stand on a rock,'The Throne of the Messiah', and blow a shofar to announce the redemption of the world.

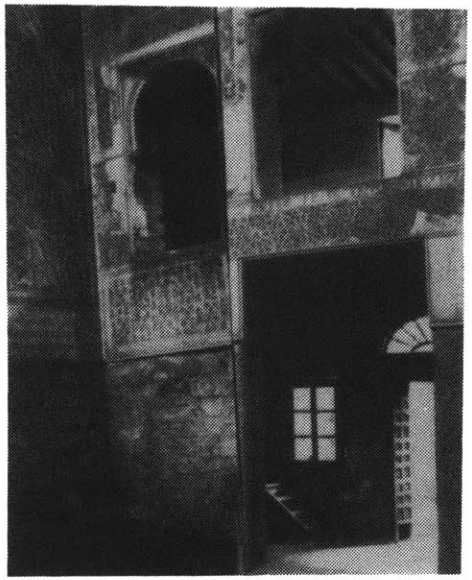


Detail of the scene depicting Abraham's sacrifice in the sixth-century mosaic floor of the synagogue at Beth Alpha, Hefzibah, Israel, the work of Jewish mosaicists named Marianos and Hanina.

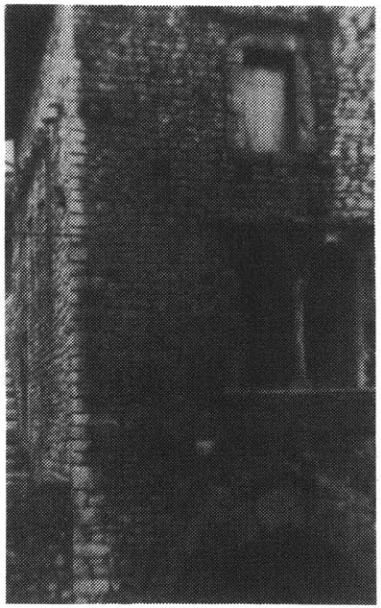


Interior of the synagogue built at Toledo about 1200 and later turned into a church dedicated to Saint Maria la Blanca. The plan and workmanship is the tradition of Islamic architecture in Spain.

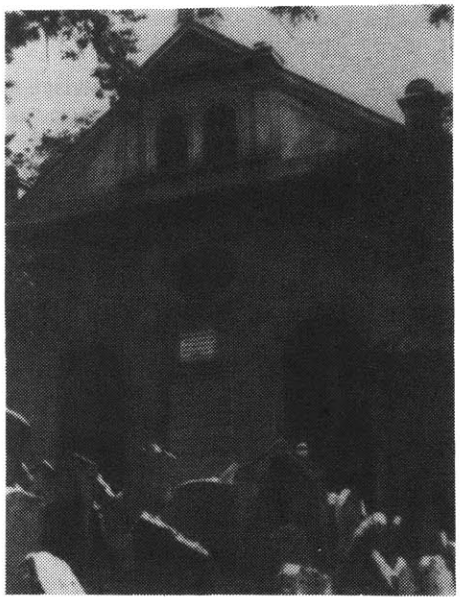
This medieval building at Lincoln where the synagogue was sacked in 1266 is still remembered as the Jews' House. It is a reminder of the prosperity of English Jewry before they were obliged to accept conversion or leave the country in 1290. It has also been associated with the famous blood libel charge over the death in 1255 of the child known as Little Saint Huge of Lincoln.



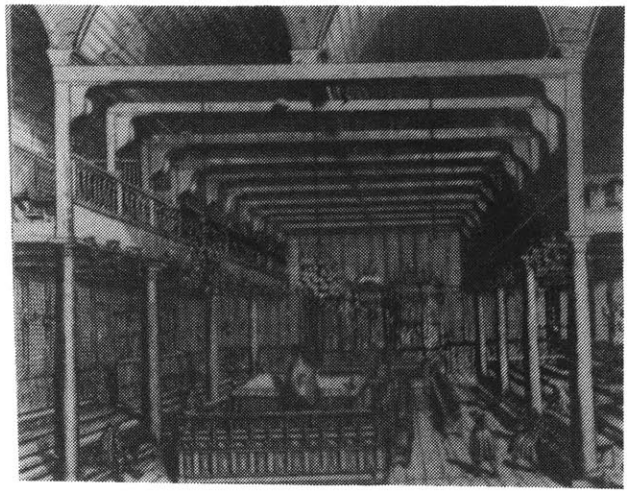
Interior of the medieval synagogue at Cordoba, Spain, near the birthplace of Maimonides. Although it was later used as a quarantine ward for rabies victims, and as an oratory of a trade guild for centuries, much of the superb Mudejar decoration and the Hebrew inscriptions have survived.



The synagogue building at Sermoneta, south of Rome, in the former Papel States, abandoned by the community when the Jews were expelled by papal order in 1555.



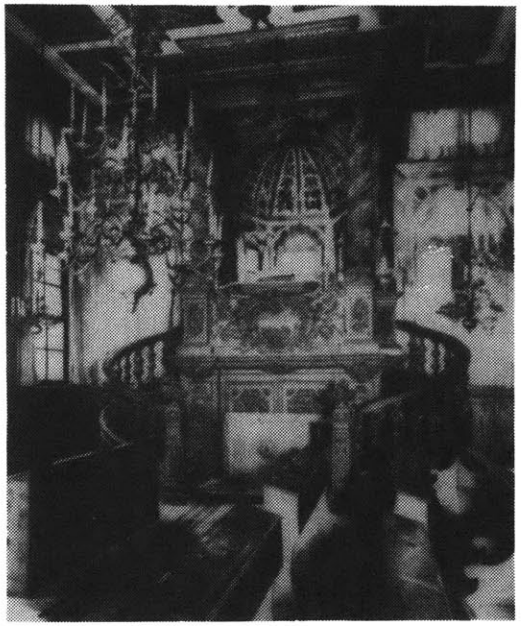
The Klaus synagogue, built at the end of the sixteenth century, was modified at the end of the seventeenth. The building is surrounded on three sides by the grounds of the old Jewish cemetery of Prague, Czechoslovakia.

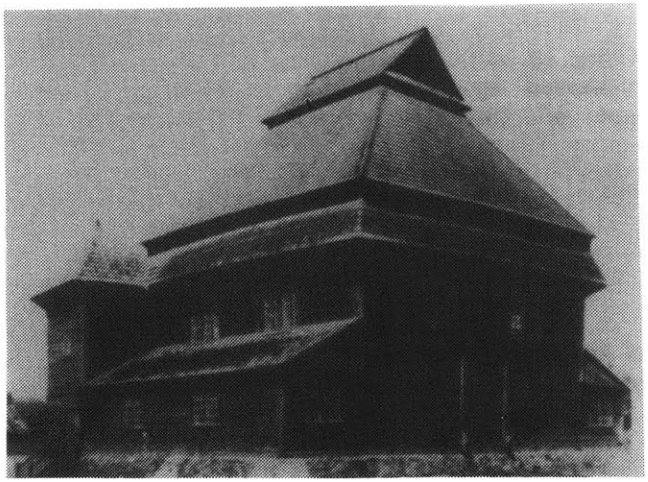


Amsterdam. The Portuguese Synagogue, 1639. Engraving ca. 1656.

The lavishly carved bimah with sweeping double-stair in the Levantine synagogue, Venice, attributed to sculpture Andrea Brustolon(1662-1732).

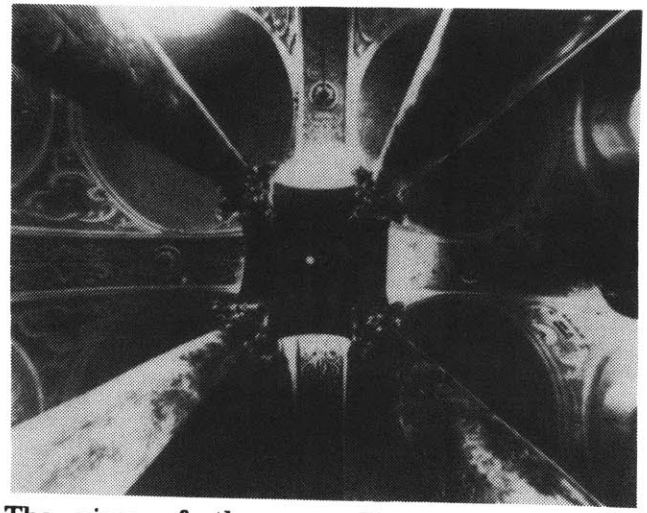
The Synagogue of the Sephardim in Bevis Marks, City of London, was built by an English Quaker and opened in 1701, it is still in use today.



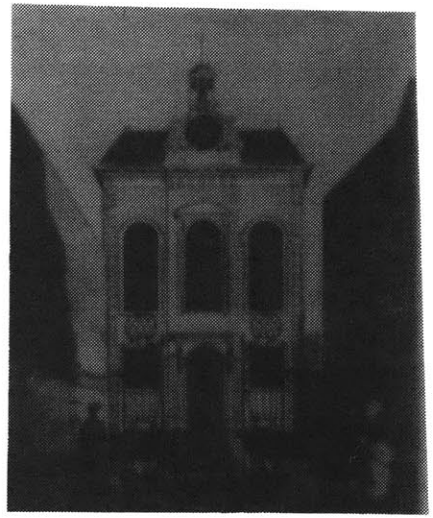


Wooden synagogue at Pjehski, since destroyed, typical of the many Jewish houses of worship built in this vernacular style in Poland, Lithuania and Russia.

Portal of the Pinkas Synagogue, Prague.

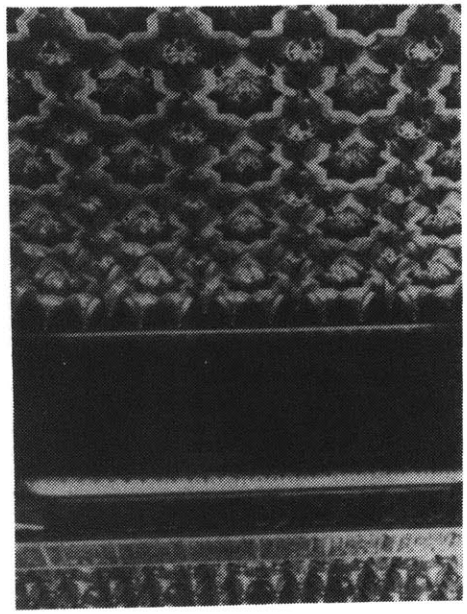


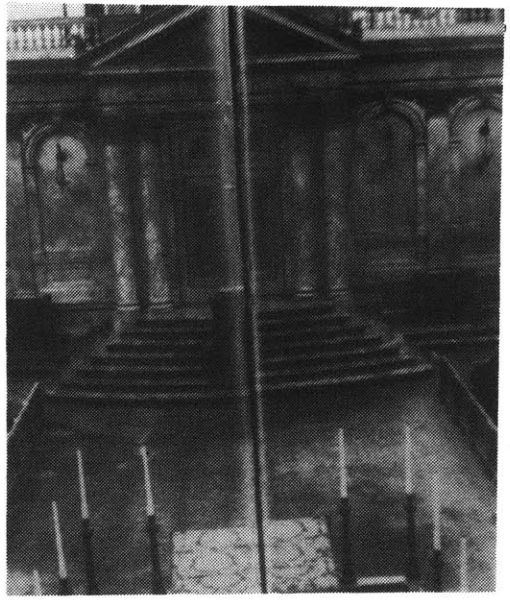
The piers of the centrally placed masonry bimah in the synagogue at Nikolsburg in the early eighteenth century, were conceived by the architect as an organic part of the concentrically planned interior.



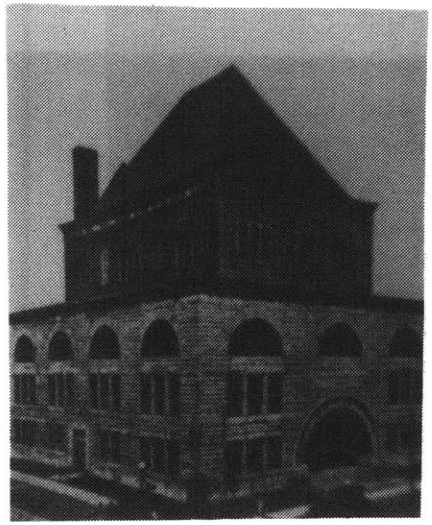
Eighteenth-century engraving of the synagogue built by the Jews of Rotterdam in 1725. It was destroyed in World War II.

The architects Schneider and Herts, who built this synagogue for congregation B'nai Jeshurun in New York City in 1918, decorated the ceiling with maquarnas stucco work inspired by the great buildings of the Moorish style in Spain.

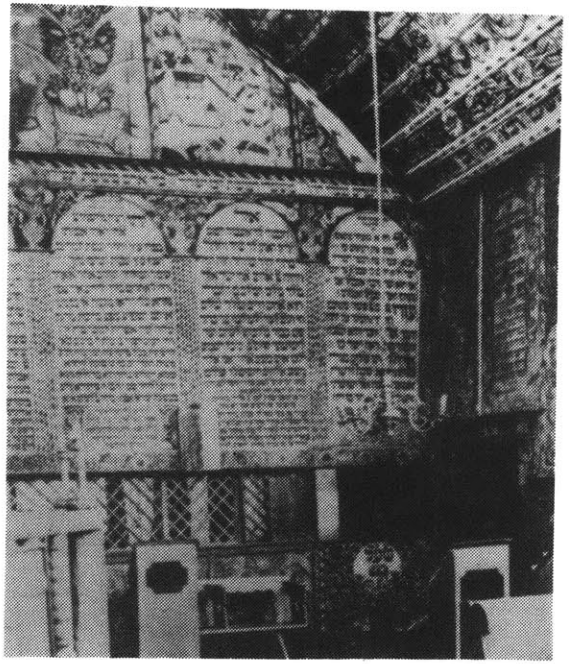




Interior of Arnold Brunner's Shearith Israel built on Central Park West, New York in 1897. The oldest synagogue in New York. The architect justified his use of Roman Revival by the architecture of the early synagogues discovered in the Galilee.



Built by Dankmar Adler in collaboration with his partner Louis Sullivan, the synagogue on Indiana Avenue, Chicago, 1891, was built in a style which drastically departs from all precedents . This photograph shows the building when it was a synagogue. It is now a Baptist church.



Photograph taken before its destruction by the Nazis in 1937, of a wooden wall of the synagogue at Bechhofen in the district of Feuchtwangen, Germany. It was painted in 1733 by Eliezar Sussman a Jewish artist from Poland.

Lublin, capital of the Nazi-designated 'Jewish State'. An elderly Jew is forced to stand by the synagogue gates with the synagogue's ornamental Star of David around his neck.

One day I questioned my father: "Did you read? The trials of the war criminals are turning into a farce. The killers listen to the witnesses' testimony and roar with laughter as though thy were at the circus. How can they?"

Pale, his eyes half closed, he answered me in a barely audible voice: "They can, they can".

Another time: "I don't understand G-d's role in the camps - explain it to me."

"You couldn't understand."

The gap between us was wide; it seemed unbridgeable.

"Both executioner and victim," my father went on, his voice unsteady,"have reason to doubt G-d."

And then the question that was burning my lips and that I never dared ask before: "You and Mother. Both of you. How did you do it -- how did you survive?"

Sometimes I would watch my father from my corner and feel anxiety creep over me. What did he look like over there? What does he do when he is not doing anything? Whom does he see when he is staring into space? The more I observed him, the less I understood the nature of his ailment.

(Elie Wiesel, The Oath, Schocken Books, New York, 1986,p23.)

"We have been taught that there is no objective difference between good buildings and bad, good towns and bad.

The fact is that the difference between a good building and a bad building, between a good town and a bad town, is an objective matter. It is the difference between health and sickness, wholeness and dividedness, self-maintenance and self-destruction. In a world which is healthy, whole, alive, and self-maintaining, people themselves can be alive and self-creating. In a world which is unwhole and self-destroying, people cannot be alive: they will inevitably themselves be self-destroying, and miserable.

But it is easy to understand why people believe so firmly that there is no single, solid basis for the difference between good building and bad.

It happens because the single central quality which makes the difference cannot be named."

(Christopher Alexander, The Timeless Way of Building, Oxford University Press, New York, 1979, p25.)

STATEMENTS BY ARCHITECTS ON THE ARCHITECTURE OF THE SYNAGOGUE

VIEWING THE SYNAGOGUE CLOSER TO HOME

Since the end product of this design project is based in Brookline, Massachusetts, it is essential that the synagogue's timeliness and place be as major a consideration as these were in the past. As part of my investigation format covering the contemporary synagogue, several assorted synagogues located in the northeastern United States, specifically between New York and Boston, were visited and/or studied. Here my prime objective was to look for these *timely and timeless* qualities which I feel certain do exist.

Rather then transcribe my own impressions of these synagogues, I think it would be more fulfilling to let the architects themselves speak about their work.

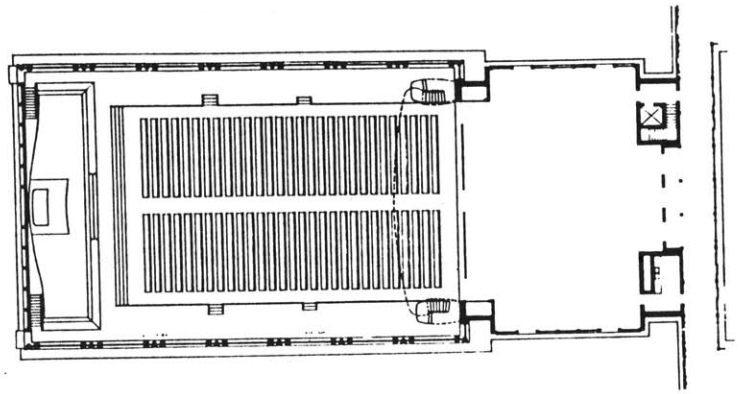
North Shore Congregation Israel
Glencoe, Illinois
Architect: Minoru Yamasaki

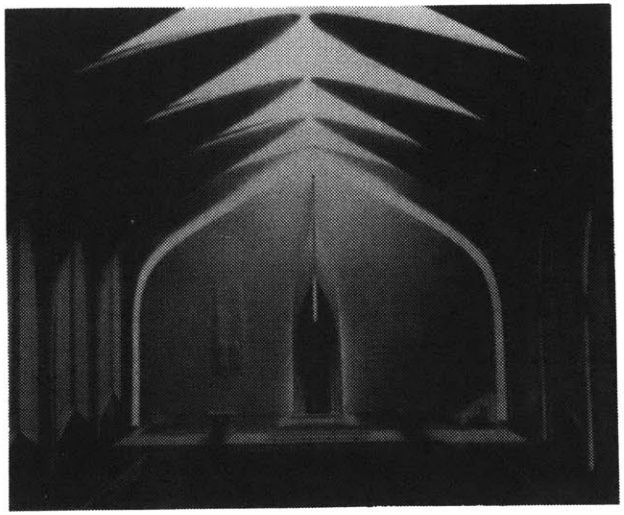
"Judaism appears to offer a beautiful combination of tradition, thought and equality. The old Gothic cathedrals put men in awe of the Lord. These churches were depressing in the grandeur. Judaism seems to place man and G-d side by side.

In order to believe in G-d, man must first believe in himself. He cannot do this unless he is given dignity by his surroundings; he shouldn't be made to feel like dust before his G-d.

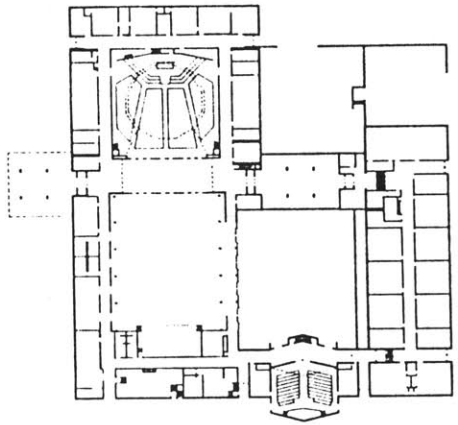
Judaism is a religion of light - not of mysticism and darkness....Judaism has little pomp and pagentry...it elevates all men-regardless of wealth and stature-to equals in the synagogue. Hence, the architecture of this House of Worship must blend all of these principles."

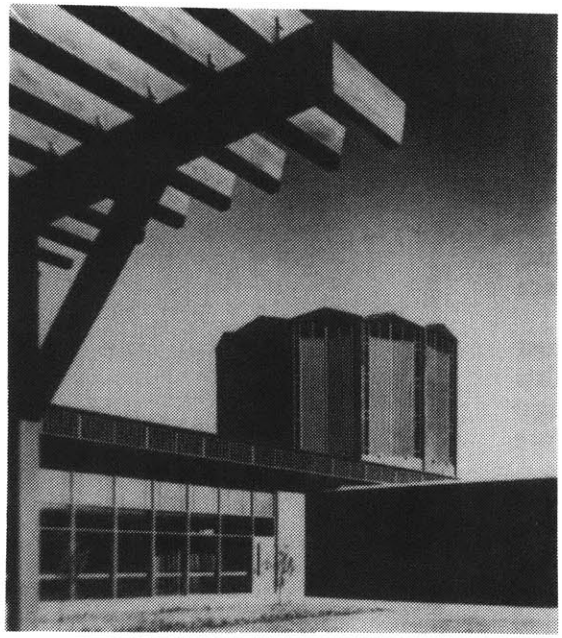
(Minori Yamasaki)

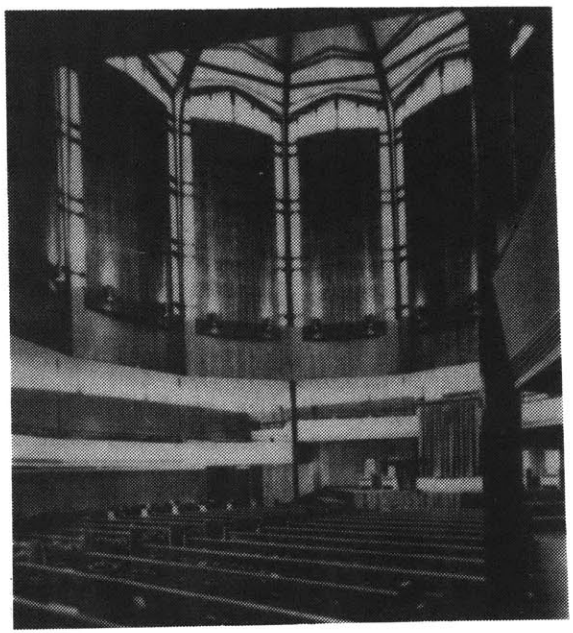


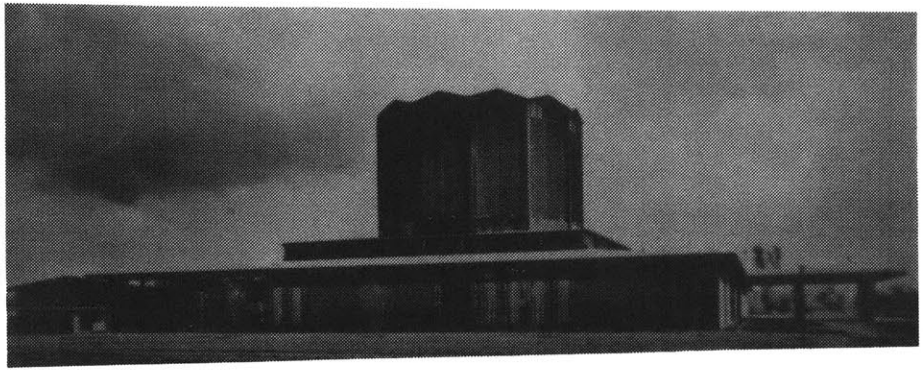


Temple Brith Kodesh
Rochester, New York
Architect: Pietro Belluschi





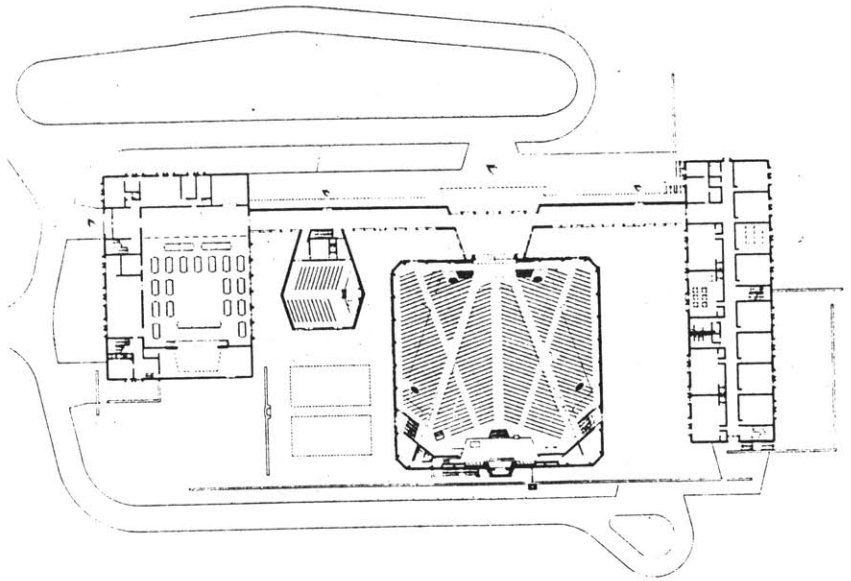




"In America, the synagogue is developing into a complex institution where the multiple manifestations of Judaism can take place in warmth and freedom. There is no architectural tradition to match the Jewish faith. Architects can contribute to a trend by creating spaces which serve their purpose with clarity and nobility. By emphasizing the special nature of simple materials such as wood and brick, they may achieve beauty without ostentation and with economy of means. The architecture of the synagogue should be an eloquent expression of the spirit of man."

(Pietro Belluschi)

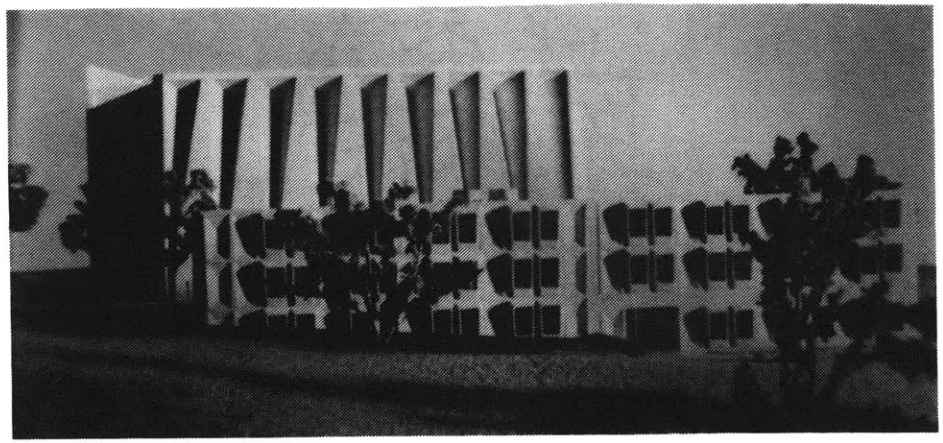
Temple B'nai Jeshurun
Short Hills, New Jersey
Architect: Marcel Breuer



"A place of worship, simple as it may be, serviceable as it need be, is-or should be-different from a mere place of assembly. Something is happening there which is more than just existance, more than just a social event. An idea is there, an attitude toward faith, an attempt to solve life's problems. Should one consider a church, a temple (as small or confined as it may be) a part of infinite space? May we hope that its geometry could be a part of cosmic geometry? Will the planes of its structure point toward distance without end?

Modest as it may be, a place of worship seems to demand dignity and serenity as its birthright. It is part of its function to reach beyond function. Its destiny seems to be to express in static material - stone, concrete, and glass -man's drive toward the spiritual. The inanimate structure reflects the vibrations of his thought, of his emotion, of his beliefs. The sober science of building and engineering has to achieve more than a routine solution: the routine solution has to recieve demonstrative and symbolic dimensions...."

(Marcel Breuer)



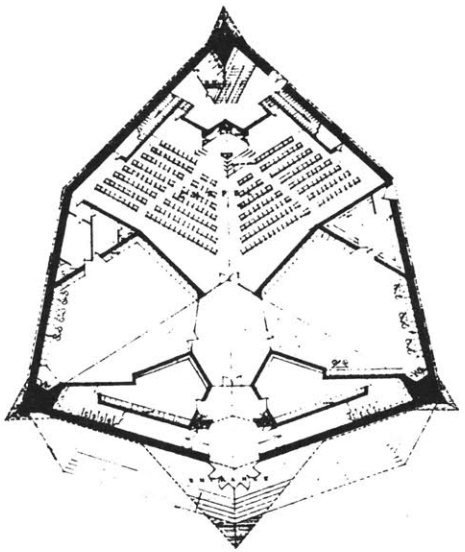
Beth Sholom Congregation
Elkins Park, Pennsylvania
Architect: Frank Lloyd Wright

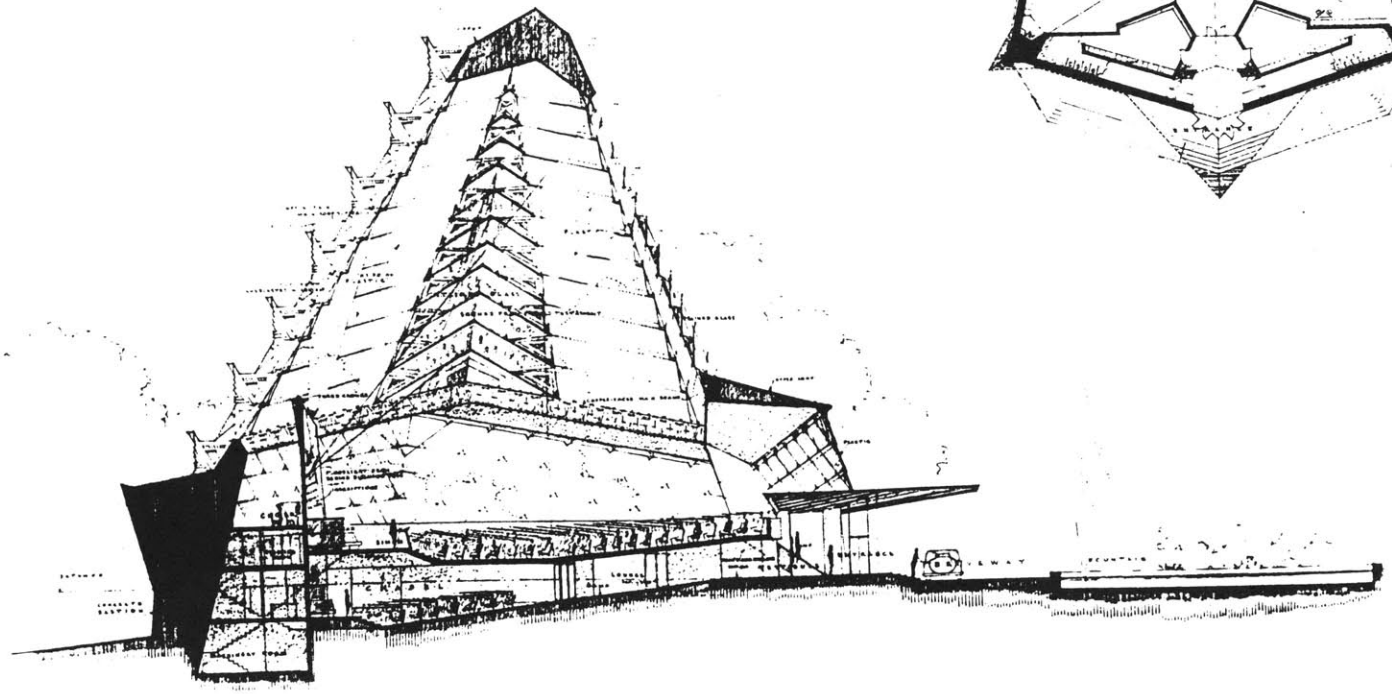
"We want to build an American Synagogue for Jews to worship in

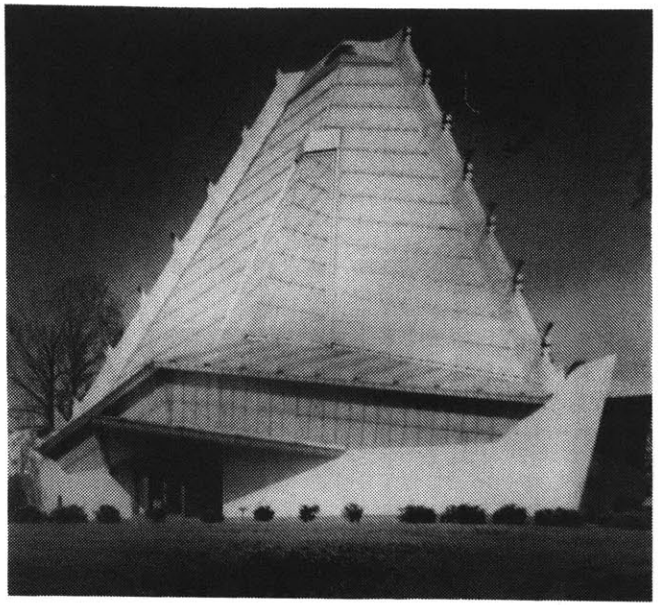
We want to create the kind of a building that people, on entering it, will feel as if they were resting in the very hands of G-d.

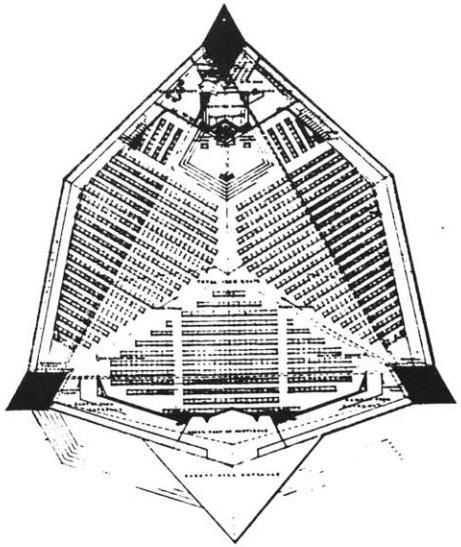
...At last a great symbol! Rabbi Mortimer J. Cohen gave me the idea of a synagogue as a "traveling Mt. Sinai"-a "mountain of light."

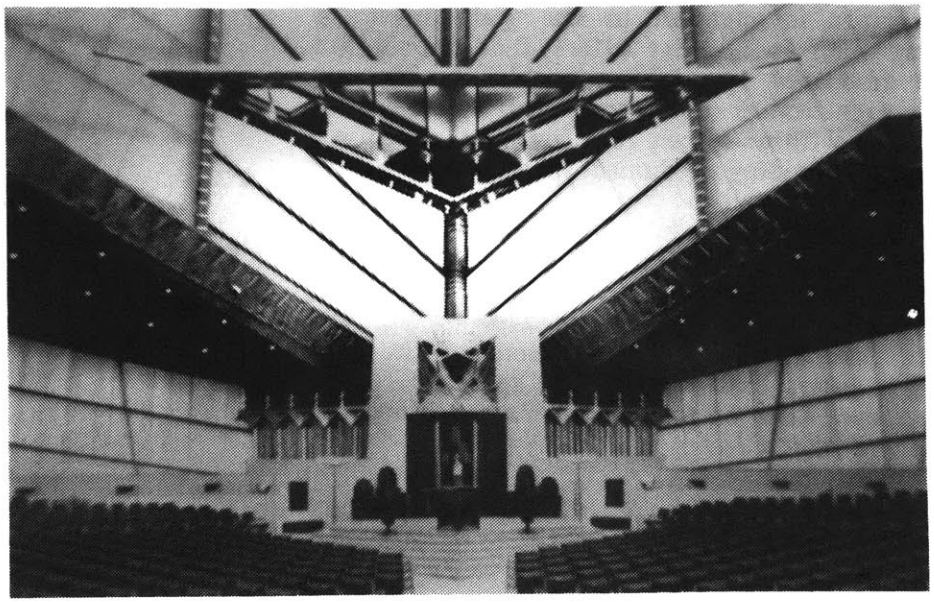
(Frank Lloyd Wright)



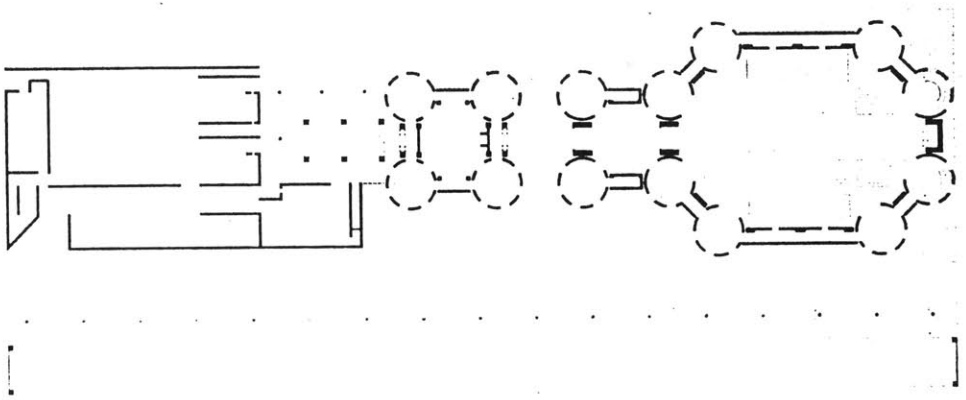






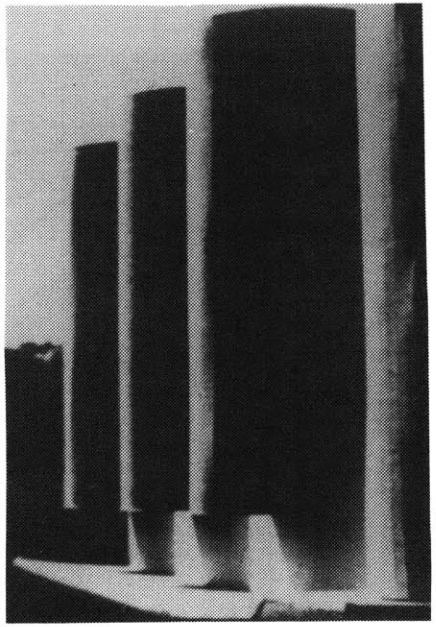


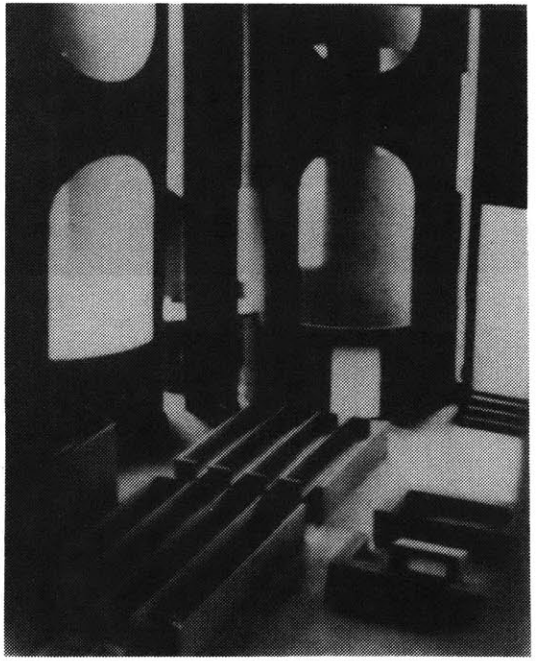
Mikveh Israel Synagogue
Philadelphia, Pennsylvania
Architect: Louis I. Kahn



"A space can never reach its place in architecture without natural light. Artifical light is the light of night expressed in positioned chandeliers, not to be compared with the unpredictable play of natural light....Architecture deals with spaces, the thoughtful and meaningful making of spaces. The architectural space is one where the structure is apparent in the space itself. A long span is a great effort that should not be dissipated by division within it. The art of architecture has wonderful examples of spaces within spaces, but without deception. A wall dividing a domed space would negate the entire spirit of the dome. The structure is a design in light. The vault, the dome, the arch, the column are structures related to the character of light. Natural light gives mood by space, by the nuances of light in the time of day and the seasons of the year as it enters and modifies the space...."

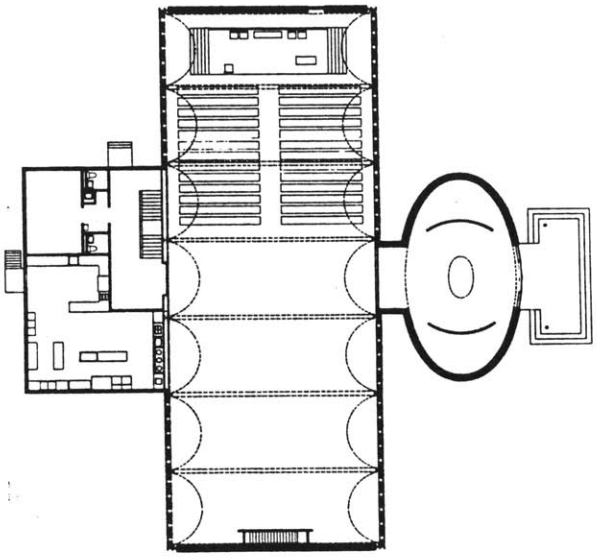
(Louis Kahn on the Mikveh Israel Synagogue in Philadelphia.)

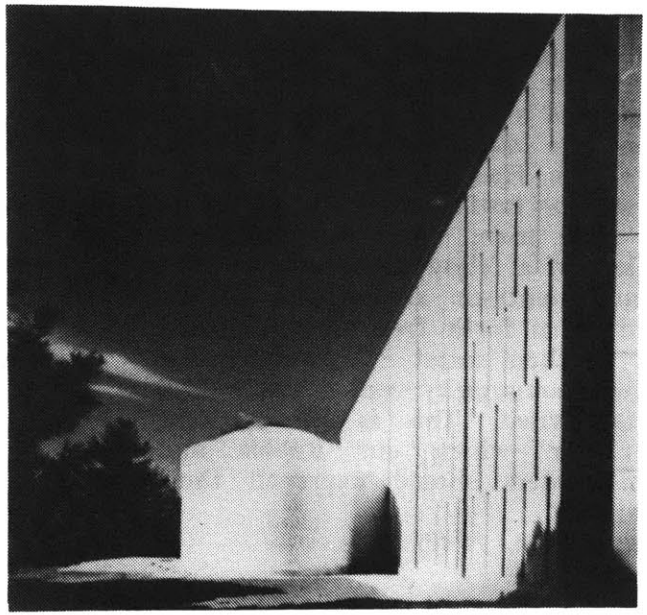




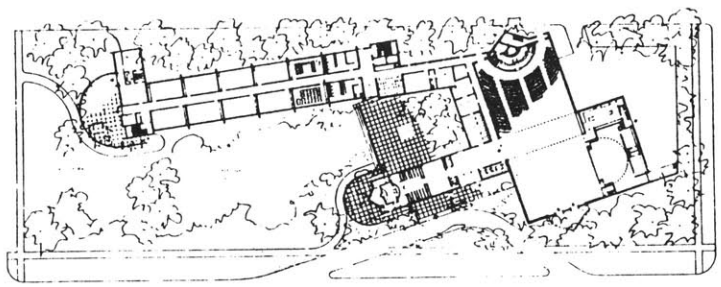
Kneses Tifereth Israel Synagogue
Port Chester, New York
Architect: Philip Johnson

"...the design of a synagogue is the finest problem in architecture, a space where awe and reverence are the prime considerations, an inspiring challenge to the artist. The shoulds and shouldn'ts of design from this point in are the architect's business. The temple as a problem, unlike many Christian churches, is open to talent. The Southern Babtist Church, for example, must have a Colonial steeple. The Jewish temple merely has to be beautiful. As simple as that."
(Philip Johnson)



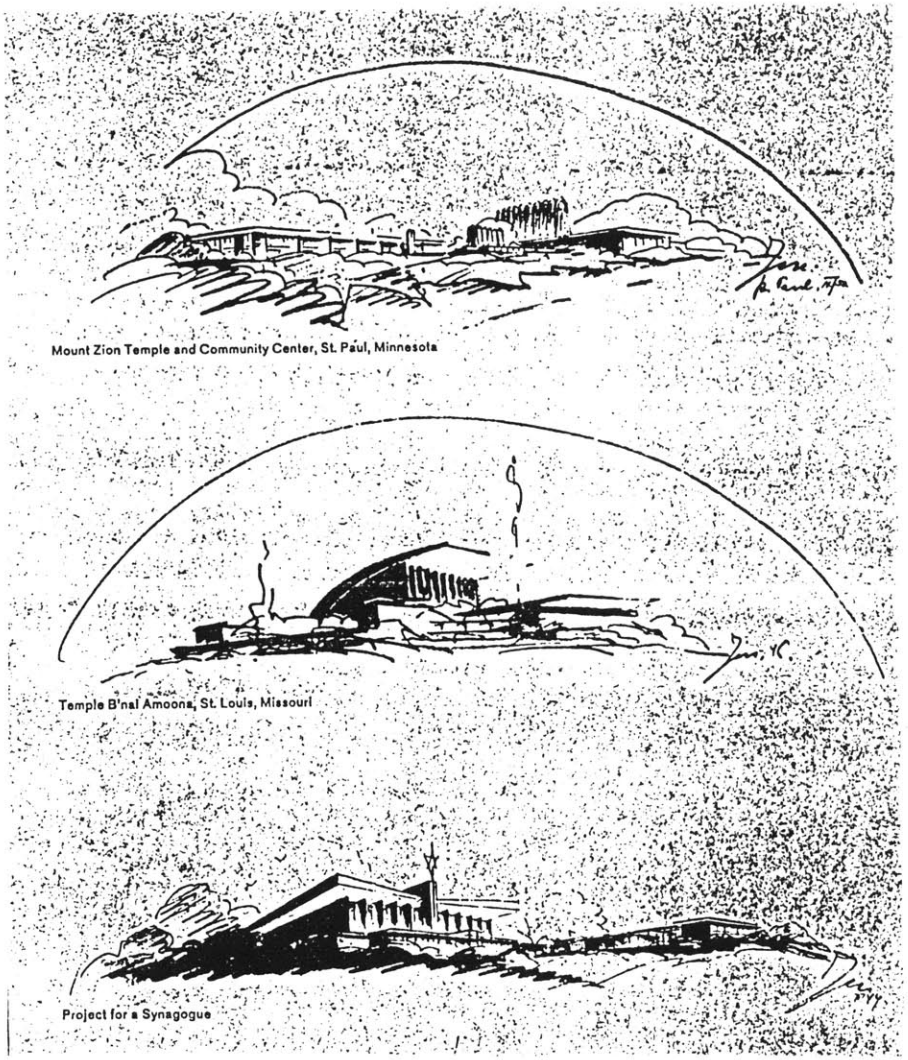


Mount Zion Temple
St. Paul, Minnesota
(and other assorted synagogues)
Architect: Eric Mendelsohn



"To re-direct their minds, to make them aware of their human limitations, to educate them toward the age-of-man we are just entering, our temples must be built to human scale. As social-centers, concentrated and flexible as life should be when it runs as a working utility. Thus, our temples should apply contemporary building-constructions and architectual conceptions to make the House of G-d a part of the democratic community in which He dwells-His laws and teachings conceivable to a century enlightened through man's scientific insight into the working order of the universe; should reject from their interiors the mystifying darkness of an illiterate time and should place their faith in the light of the day which its principles should rule- the House of G-d either an inspiring place for festive occasions lifting up the heart of man, or the animated gathering-place of a fellowship warming their thoughts and intentions at the fire of the Divine Word given forth from the alter and pulpit right in their midst - a worthy and self-respecting community-center to which everybody is invited. This is the spiritual background from which our Rabbis and Congregation leaders should approach their building projects."

(Eric Mendelsohn, 1946)



Mount Zion Temple and Community Center, St. Paul, Minnesota

Temple B'nai Amoona, St. Louis, Missouri

Project for a Synagogue

Throughout the ages the scribes have taken great care to make sure that the exact text of the Torah remained unchanged.

HALACHIC SOURCES

Jewish law plays a primary role in the design, orientation, construction, and function of the synagogue. However, as is the nature of law, in general, Jewish law is also subject to interpretation. In order to avoid confusion in this area, this thesis will interpret and clarify these laws from an Orthodox Halachic viewpoint. Therefore, omly Rabbis of Orthodox persuasion were consulted, and the texts based upon a strict Orthodox viewpoint (Talmud, Code of Jewish Laws, the Zohar, and Maimonides' Mishnah Torah) were used.

The first press edition of the Talmud was printed in Venice between 1520 and 1523. The layout of the pages has barely changed in over four centuries.

Maimonides.

Maimonides' Eight Degrees of Charity (in descending order)

1. Highest of all is when money is given to prevent another from becoming poor, as by providing him with a job or by lending him money to tide him over a difficult period. There is no charity greater than this because it prevents poverty in the first place.
2. A man contributes anonymously to the charity fund which is then distributed to the poor. Here the poor man does not know to whom he is indebted, neither does the donor know whom he has benefited.
3. A man throws the money into the house of the poor man. The poor man does not know to whom he is indebted but the donor knows whom he has benefited.
4. A man places his donation in a certain place and then turns his back so that he does not know which of the poor he has benefited, but the poor man knows to whom he is indebted.
5. A man gives without having to be asked, but gives directly to the poor who know, therefore, to whom they are indebted, and he, too, knows whom he has benefited.
6. A man gives but only when he is asked by the poor.
7. A man gives without a cheerful countenance but less than he should.
8. A man gives but is glum when he gives. This is the lowest degree of all.

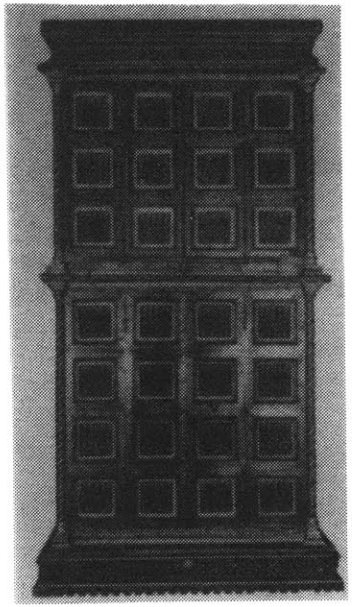
STATEMENT BY AN ORTHODOX RABBI ON THE ARCHITECTURE OF THE SYNAGOGUE

An Orthodox Point Of View

Dr. Sidney B. Hoenig, Yeshiva University

The traditional synagogue, as maintained by orthodox Jews, is one that is a *Mikdash Me'at* -- a miniature sanctuary. Hence its every aspect must be that of *Kedushah* -- sanctification. In design it recognizes separate seating for the sexes, for such was the mode in the ancient Jerusalem Temple. Architectually, there may be a gallery for the women or separate rows marked by a divisional fencing or balustrade.

Traditional orthodox synagogues are always built with the Ark of the Law -- *Aron ha-Kodesh* -- containing the Torah scrolls in the East portion of the hall. This ark is always covered



A product of the period of transition from the Gothic style of the Middle Ages to that of the early Renaissance in Northern Italy, this Ark from a synagogue at Modena, Italy, is dated 1505. It is now in the Musee' de Cluny, Paris.

"The hazzan of the synagogue took the scroll of the Torah and handed it to the chief of the synagogue; he handed it to the prefect, who in turn handed it to the high priest, who received it standing and read it standing."
(Mishna, Sot.7:7)

with a *parochet* -- curtain -- even as in the ancient Temple there was such a curtain for the Holy of Holies. Above the ark there is always an "Eternal Light" burning.

Usually the ark is on a higher platform above the customary seating. This is the *dukan* from which the *Kohanim* give their priestly benediction. Immediately below there is the *tevah* or *amud* -- or Readers' Desk -- from which the reader or cantor recites the prayer as he leads the congregation. On the dukan, too, there is also a stand facing the congregation for the Rabbi to deliver his discourses.

The traditional synagogue usually has in its center a *bimah* or platform from which the Torah is read. This is centered, according to tradition, so that all may watch and listen to the Torah reading. In Sephardic congregations, this bimah is more toward the back of the synagogue, leaving

the space between it and the dukan vacant as *admot kodesh* **-- sacred ground -- facing the ark.**

In many synagogues there is also a *laver* **or washing stand at the entrance for the purification of the hands, allowing for entrance to prayer in a spirit of sanctification and devotion.**

(As printed in Recent American Synagogue Architecture by The Jewish Museum in New York.)

Interior of the medievel Stara synagogue, Cracow, Poland, a fine example of the twin-nave hall with central bimah. The building was restored after the ravages of World War II.

A Modern Orthodox Synagogue in Washington Square, Brookline

Total site footage: 30,000 sq. ft.
Total membership: 500
Average seating requirement on Sabbath and Holidays: 300
Highschool enrollment: 300

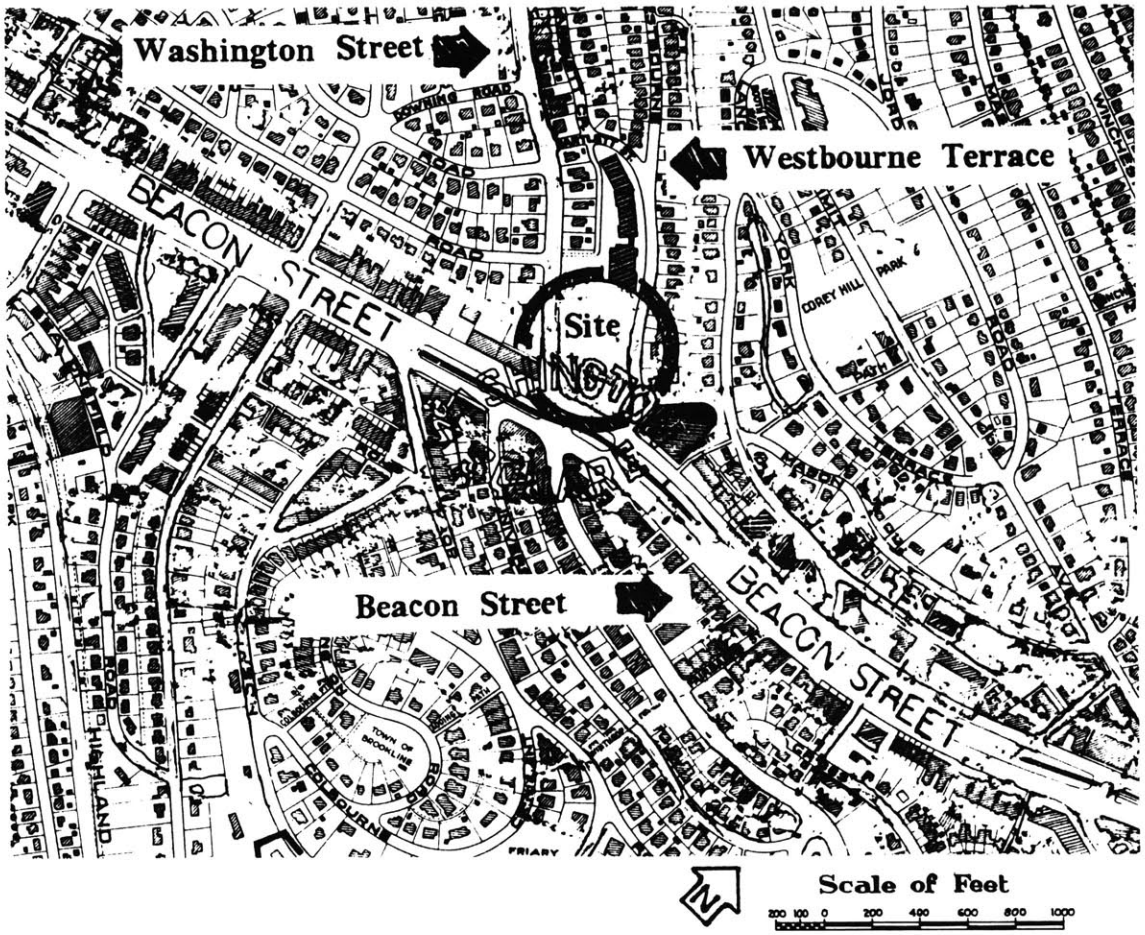
THE PROGRAM

Spaces	Square footage
Main Sanctuary	4000
Junior Chapel	400
Vestibule	2000
Library and museum	5000
Rabbi's study	200
Administrative office space for two sectrataries	250
School office one secretary, desk, counter sp., mimeograph area	300
Principal and Vice-principal's offices	250
Conference room	250
Teachers offices 4 double (150ea.) 3 single (100ea)	900
Main Ballroom	5000
Kitchen	1500
Stage	750
Junior Ballroom	1500

Spaces	Square footage
Cafeteria	2000
Classrooms 6 at 450ea. 10 at 220ea.	4900
Lecture room	750
Arts and crafts room	600
Music room	450
Club spaces 6 at 150ea.	900
Bridal room	120
Mikvah with showers and dressing rooms	300
Bathrooms	600
Coat room	150
Storage areas	300
Athletic center	4000 (?)

(all figures are approxiamate)

Total Square footage: 40,000 sq. ft.


Washington Street
Westbourne Terrace
BEACON STREET
Site
Beacon Street
BEACON STREET
HIGHLAND ROAD
COREY HILL
PARK
Scale of Feet
200 100 0 200 400 600 800 1000

THE SITE

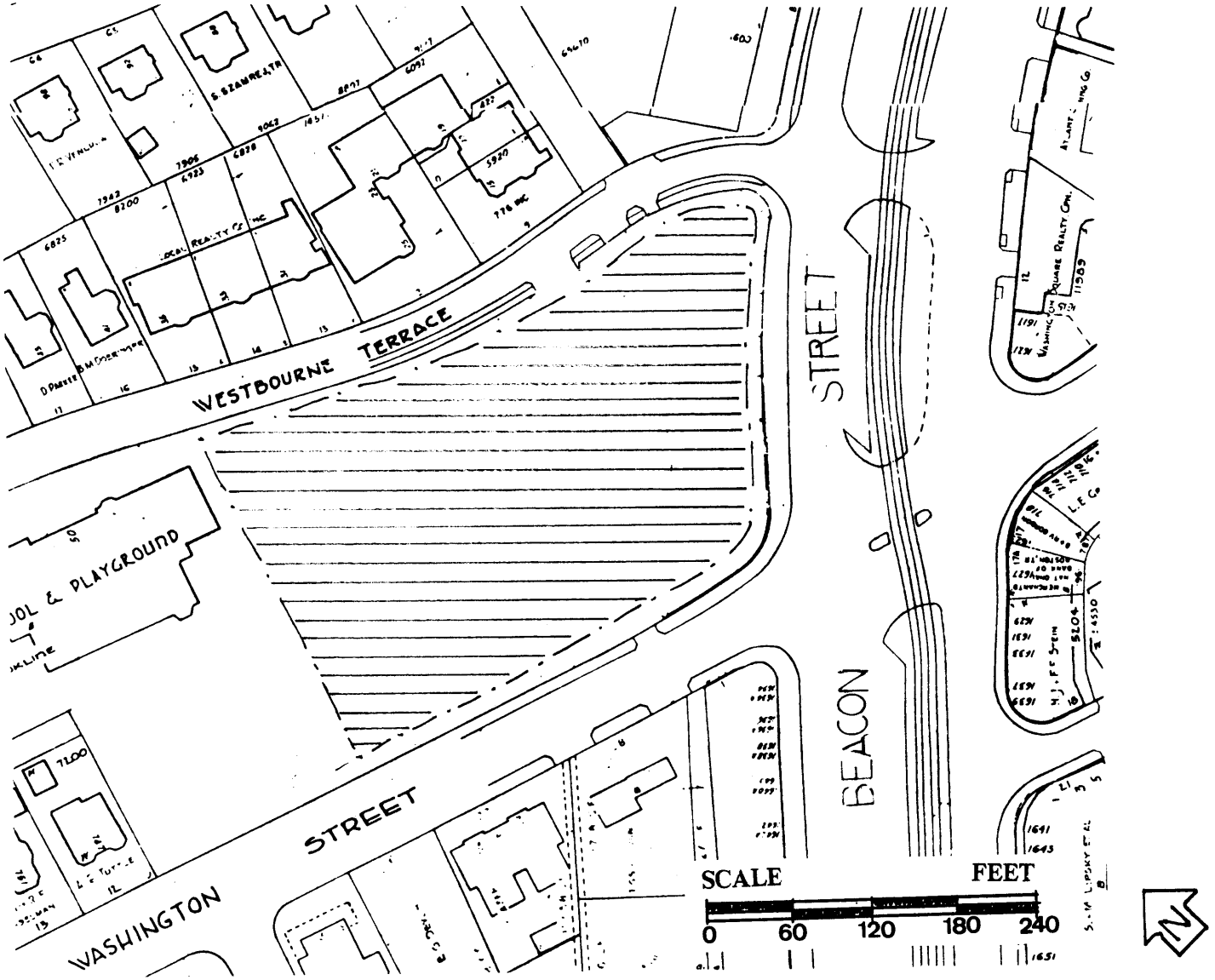
The Washington Street Synagogue is to be located on a 30,000 square foot plot of land in Brookline, Mass.

The site, just off of Beacon Street, is slightly less than one mile west of our parent synagogue, *Temple Ohavei Shalom.* Our site is flanked on the west by Washington Street, a heavily traveled two-way street gently sloping upward from Beacon Street.

The area surrounding the site is primarily residential with the exception of the buildings, which are mainly commercial and office space, lining Beacon Street.

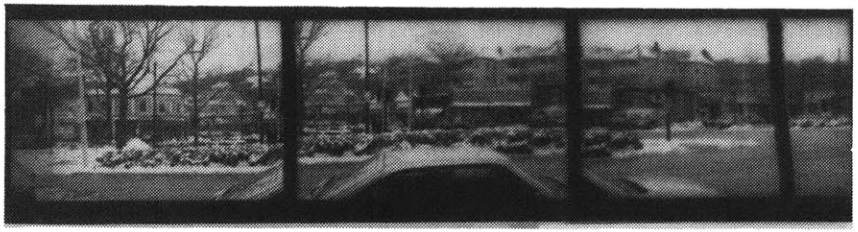
The site is presently flat with only minor variation in slope. To the west the site faces a small Sunoco gas station and a three-story

View of our site along Washington Street as seen from the intersection of Beacon st. and Washington St. The Driscoll School can be seen in the distance.


WESTBOURNE TERRACE
BEACON STREET
WASHINGTON STREET
SCALE FEET
0 60 120 180 240
N

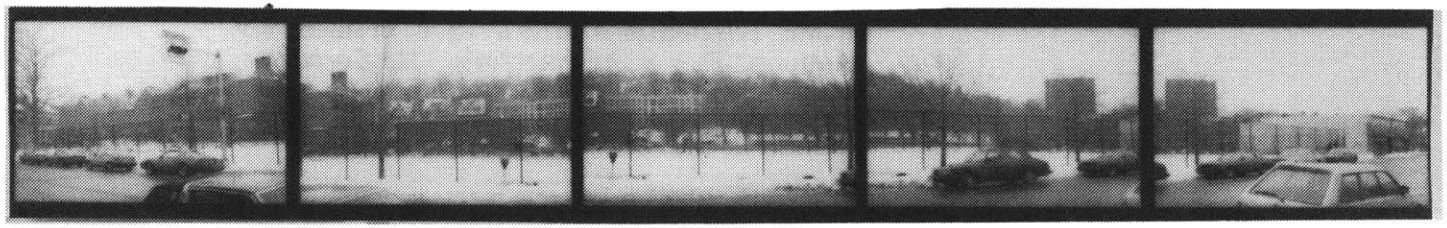
condominium apartment building. To the east we look out on several three-story residential units lining Westbourne Terrace. To the north is Brookline's Driscoll Public Elementary School, considered one of the best public schools in the Greater Boston area. The school is clearly a major influencing factor in my design since its building and outdoor play areas interact directly with the site.

View along Beacon Street across from our site.



Panaroma (same as above)

View of our site from Washington Street



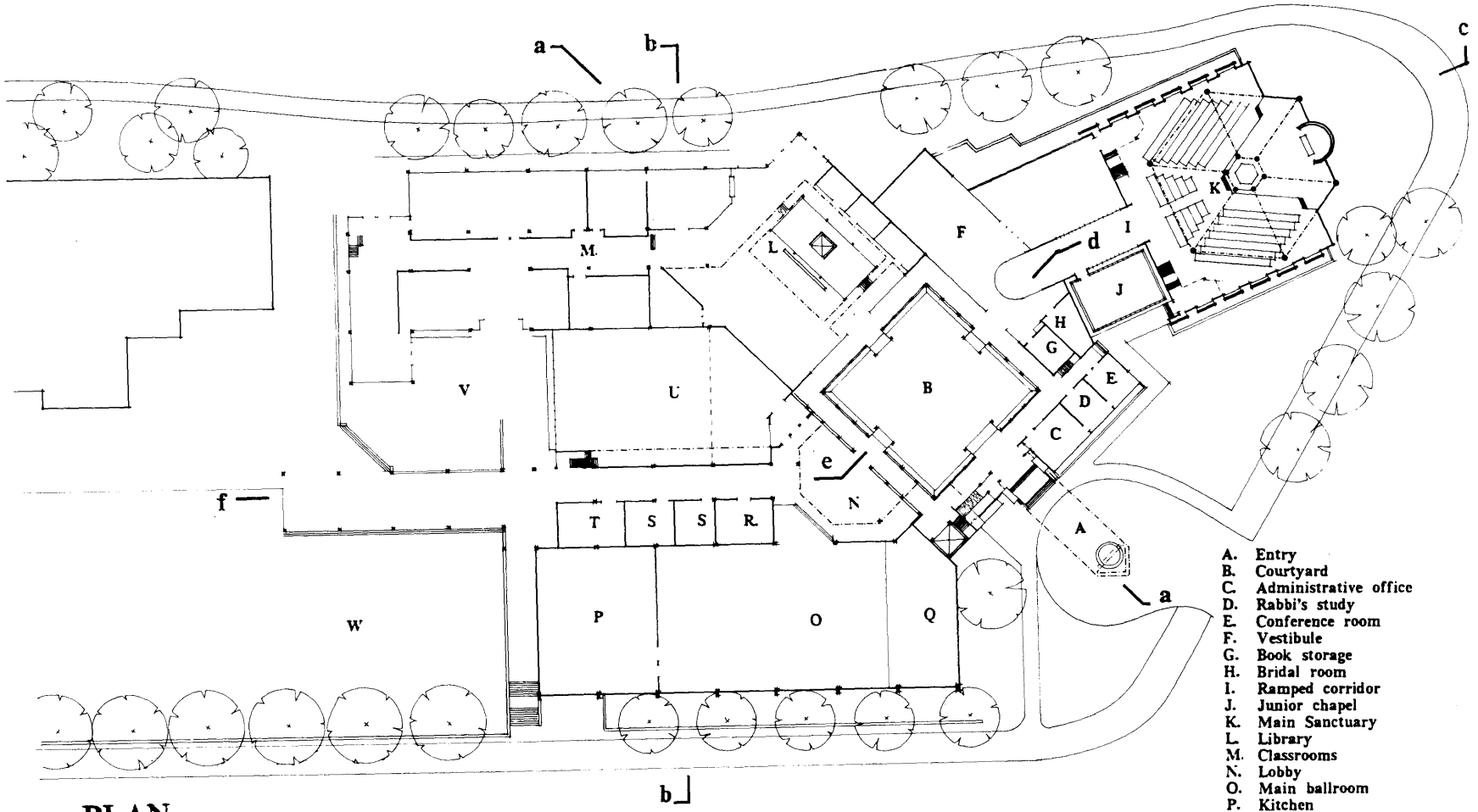
THE DESIGN

You employ stone, wood and concrete, and with these materials you build houses and palaces; that is construction. Ingenuity is at work.

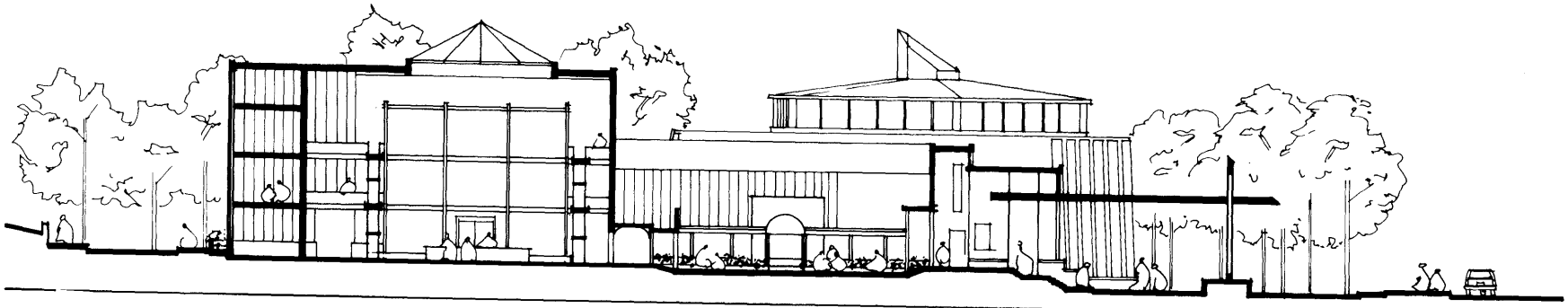
But suddenly you touch my heart, you do me good, I am happy and I say: "This is beautiful." That is Architecture. Art enters in.

My house is practical. I thank you, as I might thank Railway engineers or the Telephone service. You have not touched my heart.

But suppose that walls rise towards heaven in such a way that I am moved. I perceive your intentions. Your mood has been gentle, brutal, charming or noble. The stones you have erected tell me so. You fix me to the place and my eyes regard it. They behold something which expresses a thought. A thought which reveals itself without word or sound, but soley by means of shapes that stand in a certain relationship to one another. These shapes are such that they are clearly revealed in light. The relationships between them have not necessarily any reference to what is practical or descriptive. They are a mathematical creation of your mind. They are the language of Architecture. By the use of inert materials and starting from conditions more or less utilitarian, you have established certain relationships which have aroused my emotions. This is Architecture. *(Le Corbusier, 1923)*

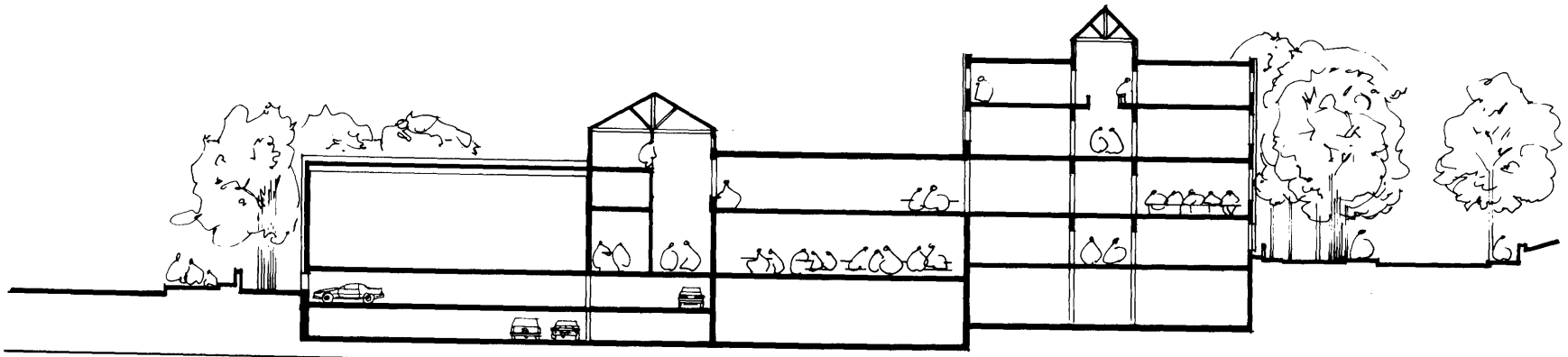


A. Entry
B. Courtyard
C. Administrative office
D. Rabbi's study
E. Conference room
F. Vestibule
G. Book storage
H. Bridal room
I. Ramped corridor
J. Junior chapel
K. Main Sanctuary
L. Library
M. Classrooms
N. Lobby
O. Main ballroom
P. Kitchen
Q. Stage
R. Judaic shop
S. Bathrooms
T. Caterers office
U. Cafeteria/Jr. ballroom
V. Outdoor gardens
W Open field



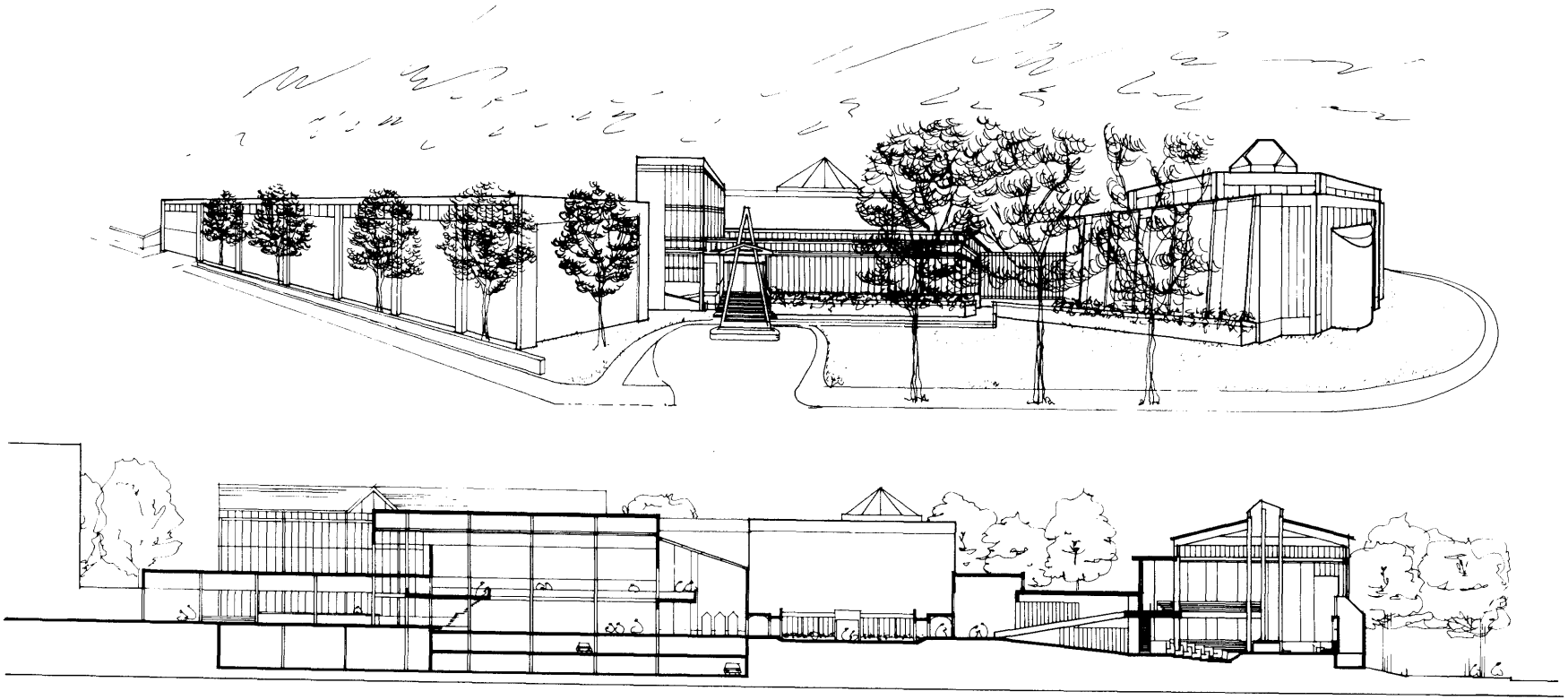
SECTION: a-a

SCALE 0 5 15 30 60 FEET



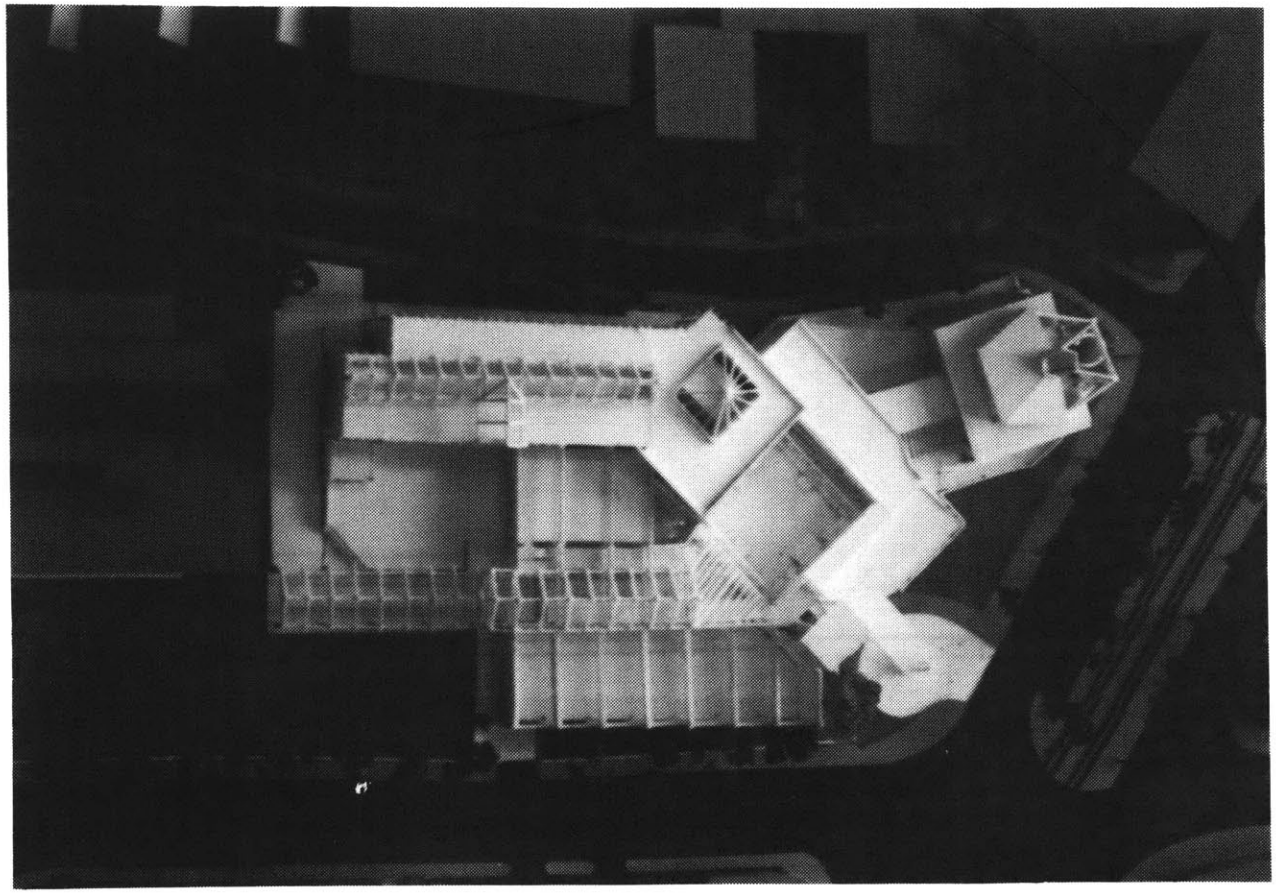
SECTION: b-b

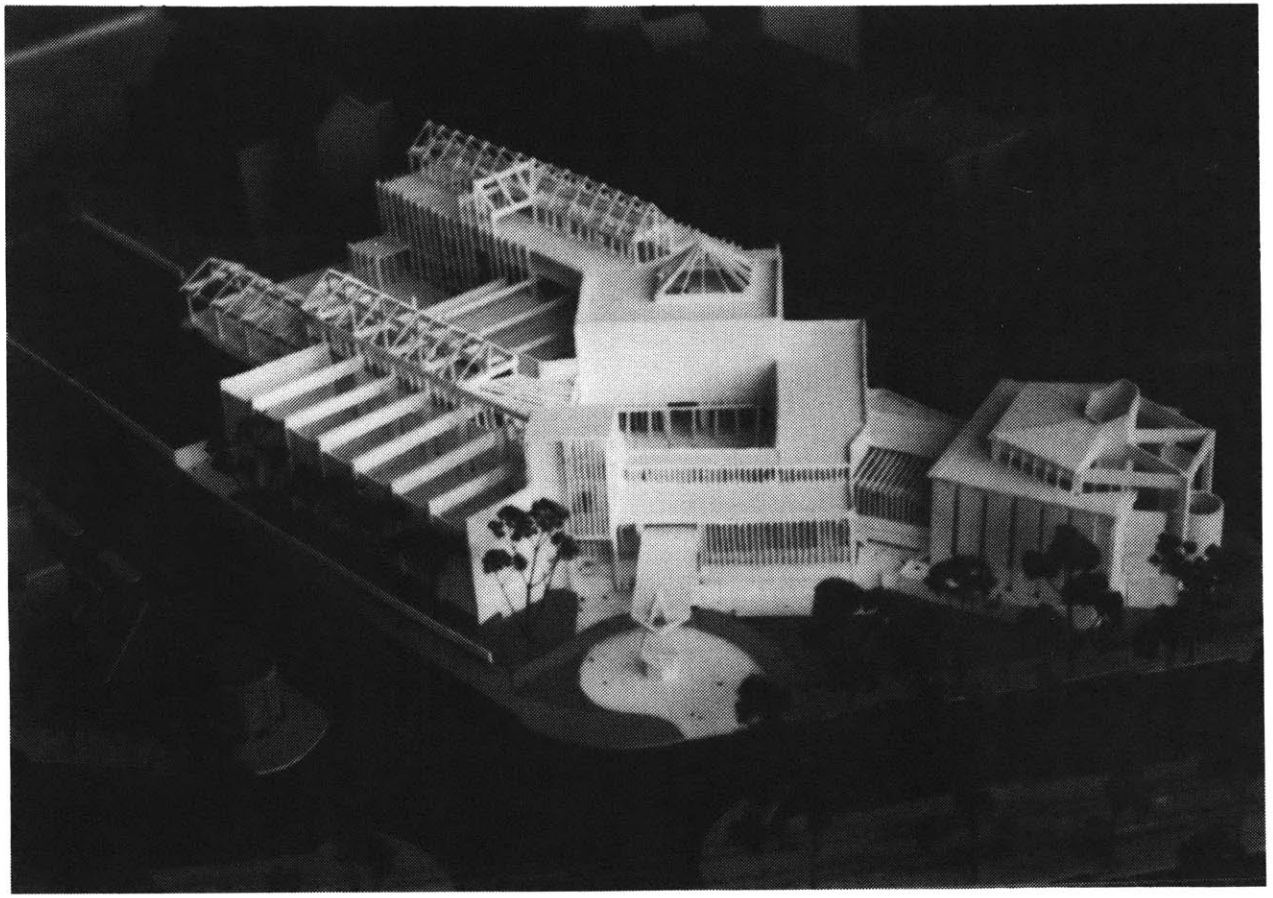
SCALE 0 5 15 30 60 FEET

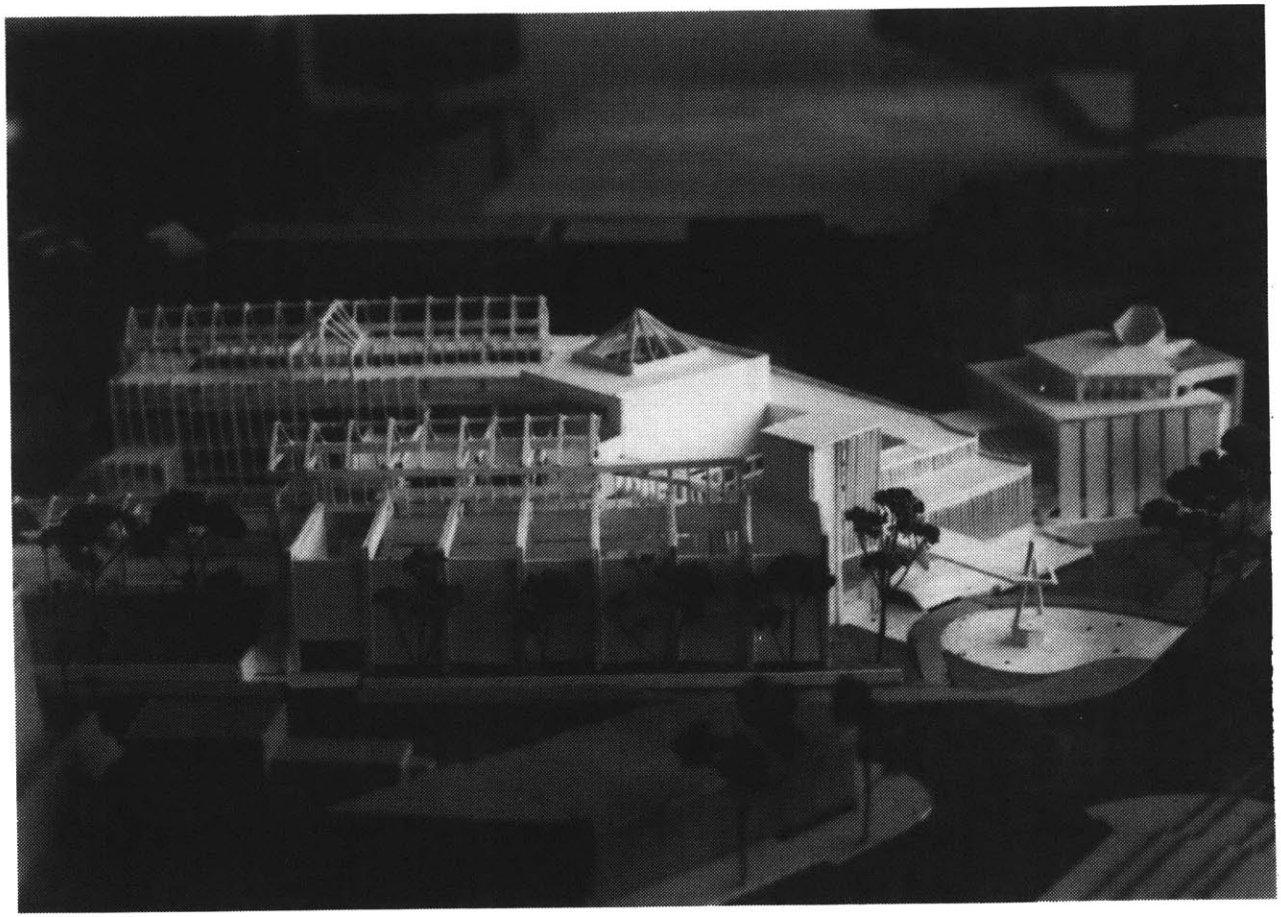


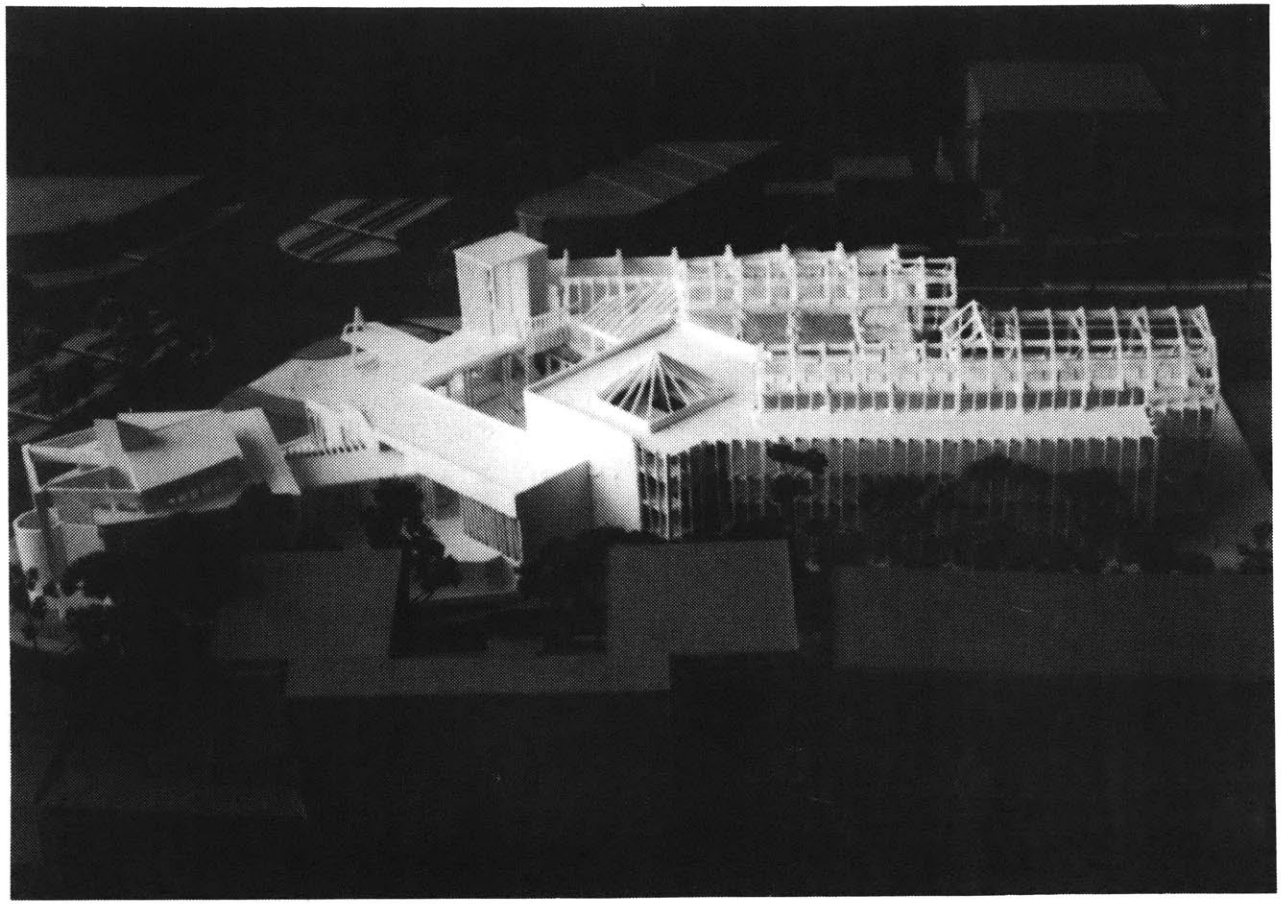
SECTION: c-d-e-f

SCALE 0 5 15 30 60 **FEET**









AN IDEA

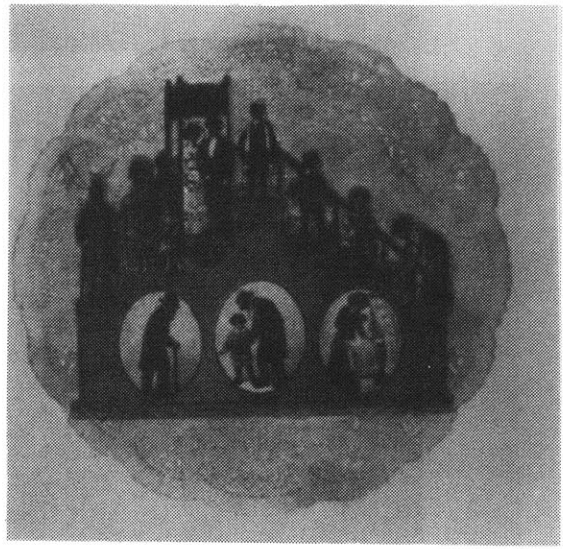
"There is a difference between an expert synagogue maker and an architect. That difference is similar to the distinction between a portrait painter and an artist. One is concerned with producing a commercial product and the other with manifesting and idea. The synagogue must be the expression of an idea; it must represent the appropriate synthesis of structured space and meaning which mark true architecture."

(Richard Meier)

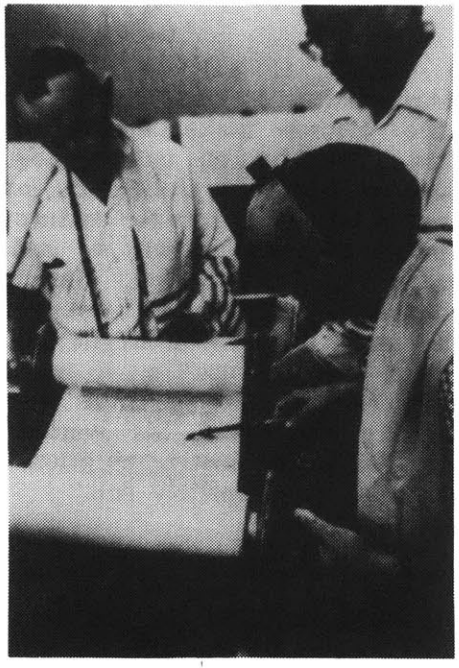
"A synagogue is a building with a threefold purpose: to house Jews in congregational worship, in study, and at communal endeavors. The community is so central to the idea of a synagogue that any location in which ten Jewish men gather for prayer may serve as a synagogue, while certain prayers can be offered *only* if ten men are present. The quorum of *ten,* rather than the building itself, constitutes the synagogue in its most fundamental sense. The very word "synagogue" comes from the Greek *synagein,* to bring together." *(Carol Herselle Krinsky, Synagogues of Europe, The MIT Press, Massachusetts, 1985, p5).*

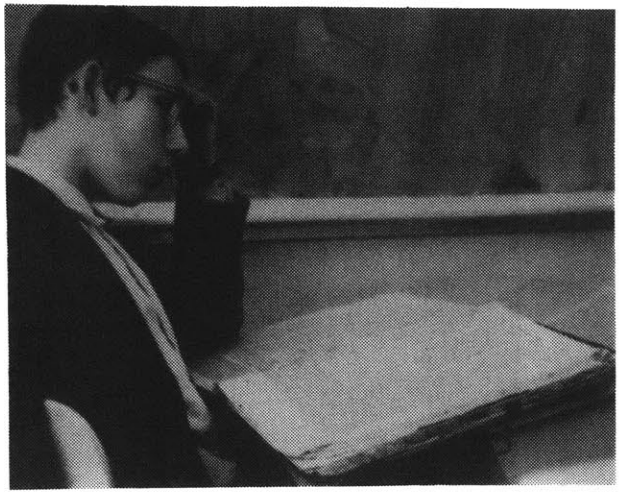
It was this *threefold* purpose of the synagogue that became the generating idea behind the development and design of my synagogue.

"Architecture is what nature cannot make. Nature cannot make anything that man makes. Man takes nature-the means of making a thing-and isolates its laws. Nature does not do this because nature works in harmony of laws, which we call order. It never works in isolation. But man works with this isolation, so whatever he makes is really quite minor, you might say, compared to what is really wanting to be expressed by the desire and the spirit of man. Man is always greater than his works. He could never, with his instrumentation, bring out that which is completely full."
(Louis Kahn)



At every stage in life a Jew is brought into contact with G-d.





The *House of Prayer* -- serving as a communal gathering place to recite the most sacred prayers and hymns and to read and expound upon the *Torah.* It is said that when we pray alone, the prayer is of great value, but there is a special spirit and concentration when we are part of a congregation which reinforces each of us.

The *House of Learning -- the yeshiva --* a place to learn both the written *(Torah sh-be-khetav)* and Oral Torah *(Torah sh-be-al Peh),* as well as secular and general studies. The Rabbis urge that schools teach both *children* and *adults* so that from childhood to death one engages in the pursuit of knowledge.

The *House of Assembly* -- a place for celebration, community discussion, physical fitness, and social interaction. Family and communal celebrations have always been regarded as important and sacred milestones in Jewish life both for individuals and as a part of the larger Jewish community. In addition, the Rabbis have always emphasized the importance of physical health and well-being. We are obliged to maintain our bodies at their physical best. In order for us to retain our mental and spiritual good health, our bodies must receive the necessary nutrients and physical exercise.

What then is the relationship between these *three* houses?

The Talmud obliges parents to teach their children how to swim.

Miniature on parchment of about 1330 from a register book of Baldwin of Luembourg, Archbishop of Trier in the Rhineland and Elector of the Holy Roman Empire. It shows the Emperor Henry VII bestowing a charter with privileges on the Jews of Rome during his visit to Italy 1310-13.

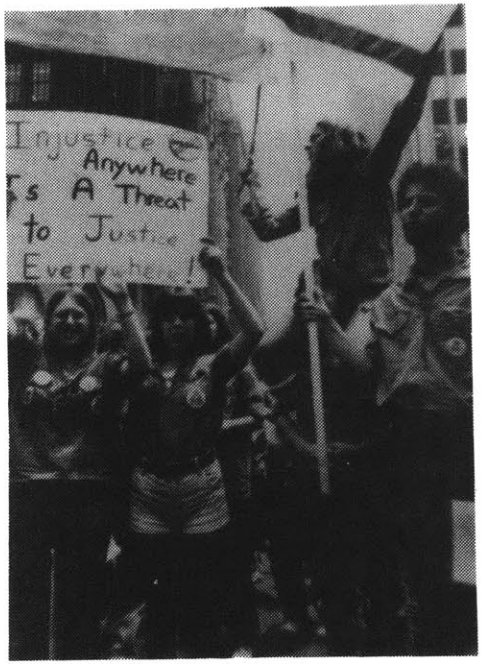
To try and measure the importance of a *House of Prayer* over a *House of Learning,* or a *House of Assembly* over a *House of Prayer,* or any such combination would in effect destroy the very foundation from which these three houses have evolved. It is my opinion that no one house is of greater significance and importance then another. All *three* are vital components in a larger all embracing concept of the *timely and timeless synagogue.* It is important to note that there have been periods in Jewish history in which one house has overtaken another in preferance. In periods of religious persecution, the *House of Prayer* seems to rise to the forefront and evolve into a sanctuary of communal hope. In periods of Jewish prosperity, the *House of Assembly* dominates as the gathering place of the community to discuss issues of social and political importance. The *House of Learning,* too, has responded to the

needs of the people at various times in Jewish history, creating such Movements as *Hasidism, the Haskalah, Orthodoxy, Conservatism, and Reform, as well as neo-Orthodoxy, Musar, and Zionism, among others.*

In no way is this to say that at any one period in our history has only *one* house served the needs of the people while the others remained dormant. Rather, each house was prepared at *all* times to respond to the needs of the people at *any* given time. It is this *unconditional response* to the people's needs that is precisely the nature and role of the synagogue.

A pious Jew in the Kovno ghetto, compelled to do forced labor by the Nazis, asked Rabbi Oshry, the Rabbi of Kovno, how he could recite the daily denediction "Blessed at Thou, O Lord, who has not made me a slave," since he was a slave. Must he not be honest when speaking to G-d? Rabbi Oshry reassured him. It was the Nazis who were the real slaves, abandoned as they were to the fearful wickedness. But a person who can freely rise in the midst of such torture to pursue the ideals of integrity when speaking to G-d, is no slave but a truely free person.

The mezuzah, like the tzitzit and the tefillin, is a constant sign of our obligations to G-d.



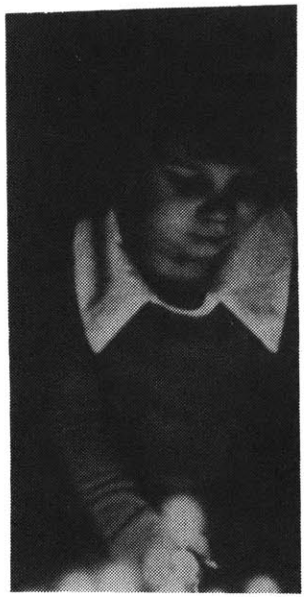
Consequently, the American synagogue has recently had a difficult time finding its place in the ever unfolding history of the Jewish people. The dual question most often asked today is the following: What are the people's needs, and how might the synagogue respond to those needs?

America has offered Jewry many of the freedoms its people have long cherished and viewed as idyllic. In light of their 4000 years of existence as a people, most of which was either spent in bondage, persecution, or wandering, America's *freedom of religion* had created a heady sense of euphoria. As a result, the synagogue, its most obvious expression of that freedom, found itself, so to speak, unprepared architecturally.

However, the one component which continued to serve as a unifying, integral feature of each synagogue from the people's earliest years of worshipping in freedom was its original *threefold* purpose -- the three Houses within one house.

This religious freedom of today's American Jew has permitted each person the right to concentrate his or her energies and abilities in any or all aspects of Jewish life. Some choose to worship each Sabbath and observe the celebration of Jewish holidays and festivals, others prefer social and communal activities, while for others Jewish study, culture, and lectures are a way of life. It is this mix of divergent interests in American Jewry that the synagogue must respond to. It must remain both flexible and responsive to this variety of needs and at the same time not become so versatile as to lose all structure and stability.

How then can one express such a *balance* while ensuring the importance of the spiritual, social, and educational needs of the people?



In my opinion, it is the creation of a threefold *equality* among the *three houses* that responds precisely to American Jewry's present needs. The acceptance of the House of Prayer, House of Learning, and House of Assembly as *equals* responds to the people's divergent individual and communal needs and, at the same time, it is hoped expresses their new found freedom. For to acknowledge that each house is of *equal* importance to the survival of Jewry is to acknowledge and respect the importance of each person's individual needs regardless of how they may differ from one's own. This *balance,* the expression of all people as equals in the eyes of G-d, is the very foundation of freedom and Jewish life itself.

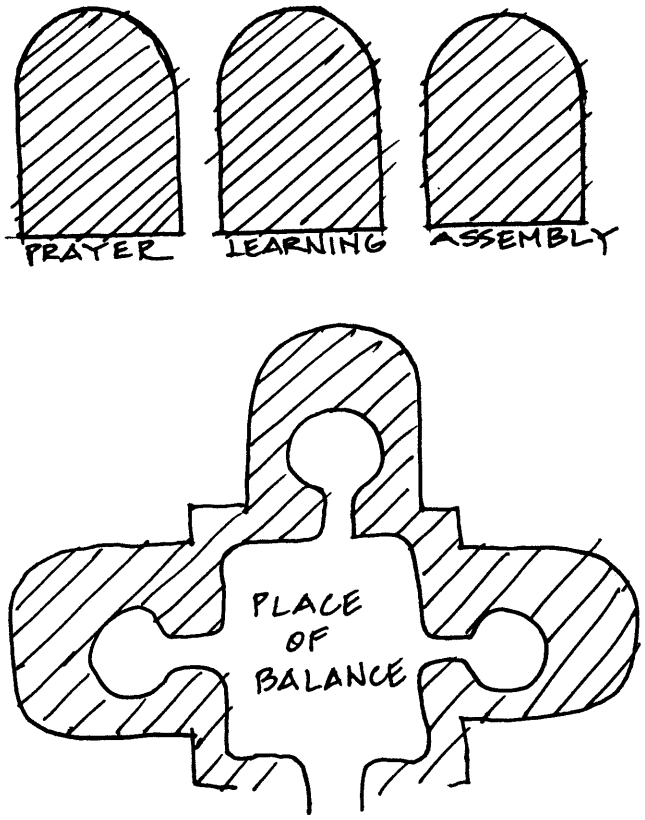
The foundation of Jewish ethics includes the belief that every human being is created in the image of G-d and is, therefore, entitled to respect.

Rabbi Akiva said: Love thy neighbor as thyself -- this is the essence of the Torah.

How does one express this equality and *balance* in the design of a synagogue?

It was decided after much thought that the best way to express this *balance* and *threefold equality* was to employ a new element in our evolving concept. This element, which came to be known as *the place of balance,* was to become the central organizing element in the development of my synagogue.

What better way existed to express the equality of all three houses than to create a new element which would be the synthesis of all three -- the ultimate place of equality and unity, the place where the spiritual, intellectual and social needs of the people could converge: a place of *balance.*



"When I speak about silence and light or the desire to express and the means, I say that all material is spent light. Light that has become exhausted. Creation makes me think of two brothers who were really not two brothers. One had the desire to be, to express; the other had the desire to be something that becomes tangible, something which makes the instrument upon which the spirit of man can express itself. If the will to be is to become something of the predominance or the prevalence of the luminous, then the luminous will turn into a wild dance of flame, spending itself into material. And this material, this little lump, this crumpled lump, made the mountains, the streams, the atmosphere-and ourselves.

We come from spent light.

(Louis Kahn)

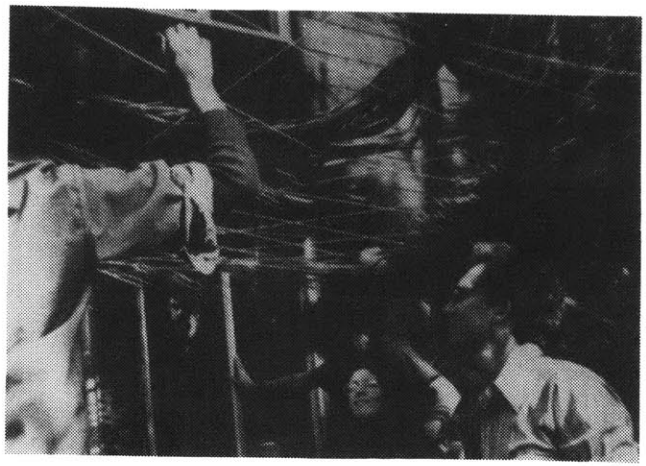
But, surely, no place on earth can conceivably house such an all-encompassing space. What purpose might it serve that it would remain unbiased and at the same time responsive to all needs equally? What would it be exactly?

This mental wrestling brought me no results. It was only when I asked myself, *"what is it not?"*, that my answer emerged.

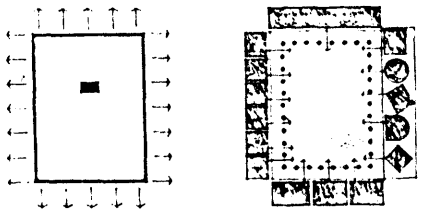
The architect, Louis Kahn, often pondered the questions of *balance and order* in *nature and man.* In his own philosophy, Kahn believed that two elements were at work in the world. One was *light,* that which is created visible. That is, *what is.* The secondly element is *silence* -- that which is not yet, but can be. Many great Jewish philosophers, such as Judah Halevi (eleventh to twelfth century), Maimonides (Twelfth century), Nachman Krochmal (1785-1840), and Spinoza have pondered similar philosophical issues. But it was

this -- *silence* -- that helped me understand what the *place of balance* was to be by understanding what it was *not* to be. The *place of balance,* where the three houses meet, should not be the physical composite of all they *are,* but rather, an expression of their potential: what *we* might be if we too find such equilibrium and balance. What this *place of balance* must be will exemplify *what has not been yet.* It is our striving, our pursuits ... our *potential.*

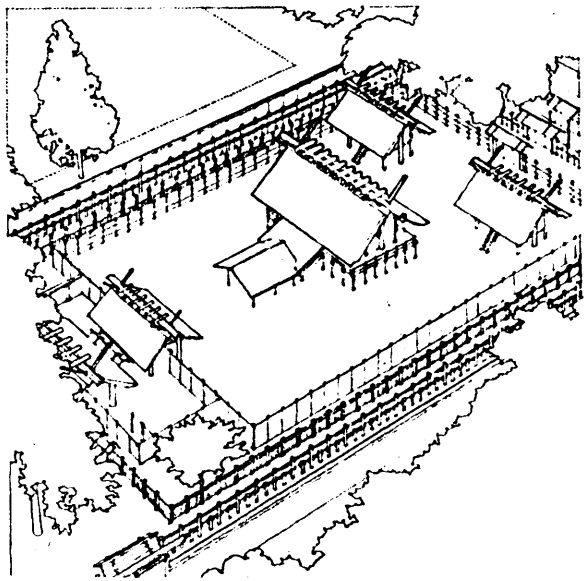
In its use, the *place of balance* remains everchanging. It is a space that becomes whatever the community wishes it to be at any given moment. On *Simchat Torah,* for example, it may be the place where the congregation gathers and dances to commemorate the giving of the Torah at Mt. Sinai; on *Succot* it may be the place where the booth (tabernacle) is built and occupied



"You shall dwell in Booths (sukkot) seven days."
(Lev. 23:42)



Case 1 Case 2



Ise Shrine: Mie Prefecture, Japan. Shrine has been reconstructed every 20 years since 690 AD.

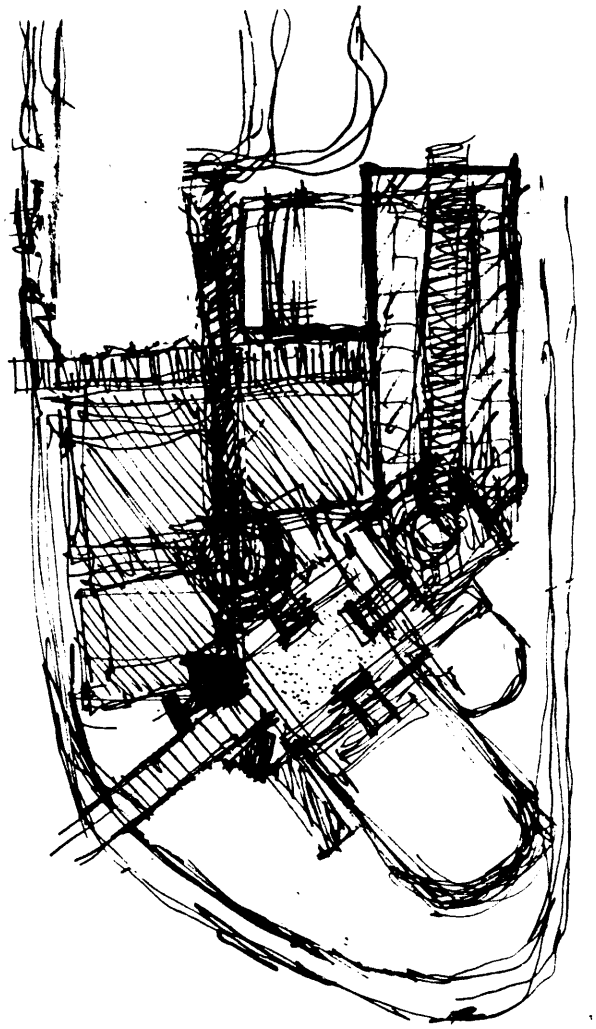
for eight consecutive days. It may serve as a place for groups to congregate, an individual to read a book, or some friends to play frizbee. The *place of balance* is *everything* and *nothing.* It is whatever the community wishes it to be, yet it remains specifically undefinable: *a place of potential.*

It is commonly understood that many ancient holy places have used four planes to "define a spatial and visual field for a sacred or significant building that stands as an object within the enclosure. In the first case, the enclosing planes are fences or walls that exclude surrounding elements from their territory. In the second case, the enclosure can consist of arcades or gallery spaces that promote the inclusion of the surrounding buildings in their field. While the first enclosure isolates its field, the second activates the space it defines." *(Francis D.K. Ching, Architecture: Form,*

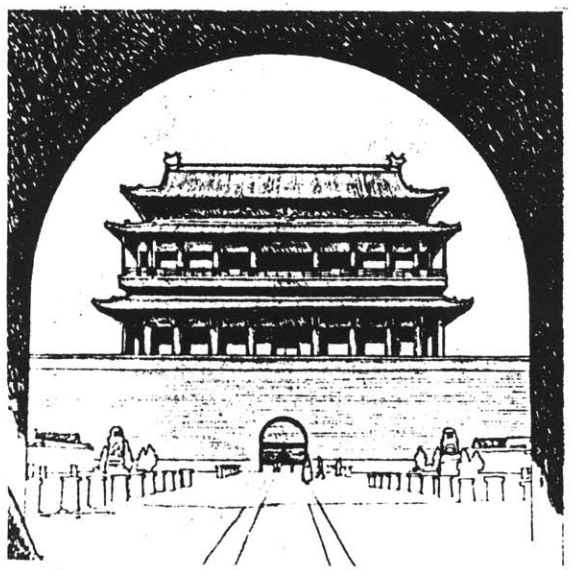
Space, and Order, Van Nostrand Reinhold Company, N.Y., 1979, p170). By using the second case, all three houses can interact directly with our *place of balance,* and with each other.

It was decided that one should come into contact with the *place of balance* upon first entering the synagogue. In this way one experiences the space initially, coming to understand that he stands at the meeting place of all three houses. After proceeding to the house or houses he requires, he must re-enter the *place of balance,* and re-experience it, hopefully with new insights from his visit.

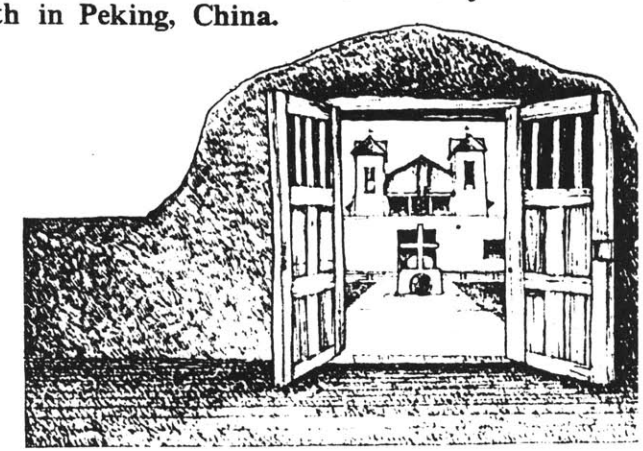
In considering the relationship between the *place of balance* and the *houses* themselves, several transitional layers were utilized. As is often the case with sacred sites one does not enter directly into them. "In all cultures it seems that whatever it is that is holy will only be felt as holy, if it



An early diagram of the evolving synagogue



Qian Mien: Link between the Imperial City to the north and the Outer City to the south in Peking, China.



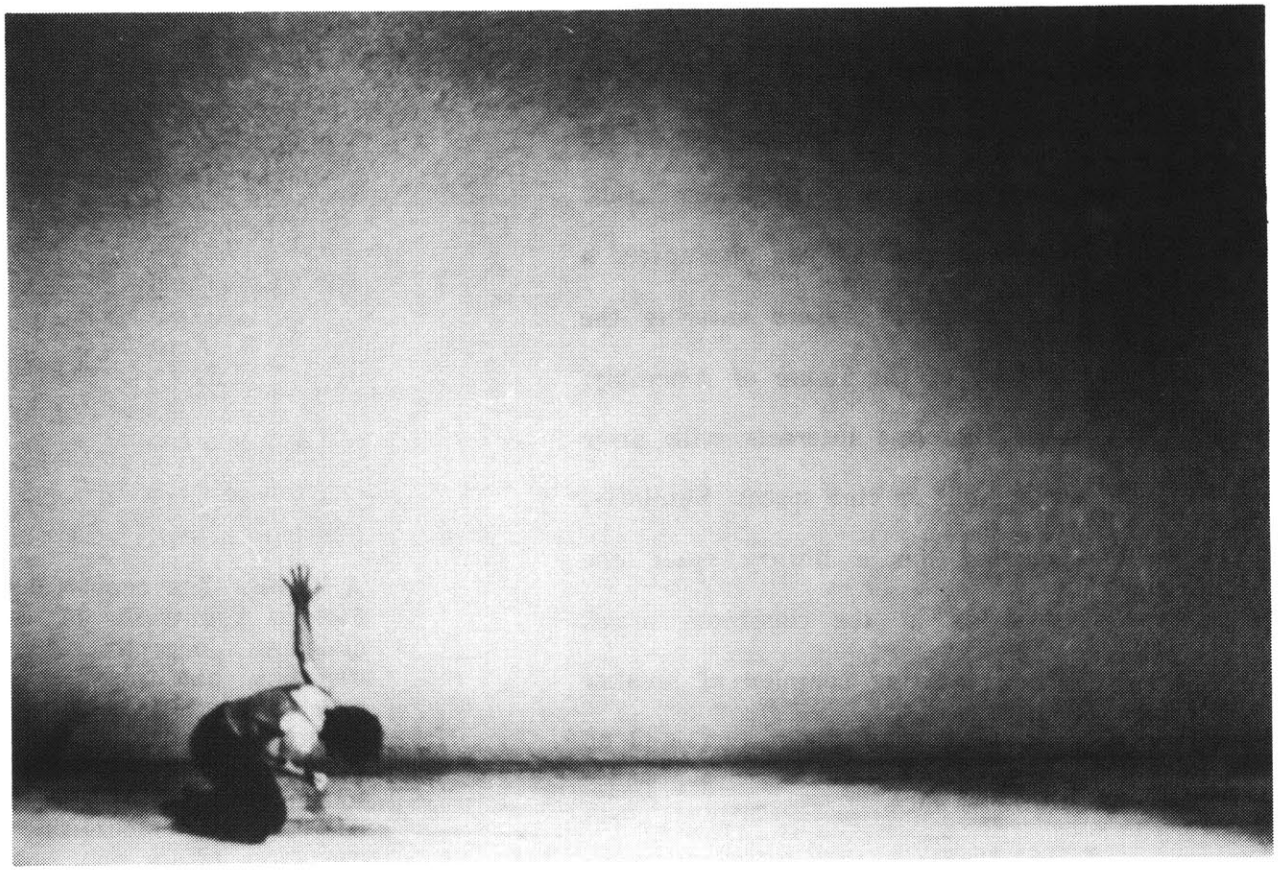
Catholic Church: Tass, New Mexico. 17th Century

is hard to reach, if it requires layers of access, waiting, levels of approach, a gradual unpeeling, gradual revelation, passage through a series of gates... This layering, or nesting of precincts, seems to correspond to a fundamental aspect of human psychology. We believe that every community regardless of whether it even has a faith in any organized sense, needs some place where this feeling of slow, progressive access through gates to holy center may be experienced. When such a place exists in a community, even if it is not associated with any particular religion, we believe that the feeling of holiness, in some form or other, will gradually come to life there among the people who share in the experience." *(Christopher Alexander, A Pattern Language, Oxford University Press, N.Y., 1977,p333-334).* It was with this in

mind that each house, in addition to having an arcade (a unifying element) around the *place of balance* had a layering progression of spaces till one at last arrives at the core of the house itself. In the case of the House of Prayer, one enters a vestibule, as is the tradition before entering the sanctuary. In the case of the House of Assembly, it's the lobby space that one interacts with prior to entering the social halls or club spaces. Similarly, the House of Learning has a library space one enters prior to arriving at the classroom areas. All culminate into a building complex of smaller parts responding to their own social fact and to the larger organizational idea.

A family has couples and groups within; a factory has teams of workers; a town has divisions, departments within the larger divisions, and working groups within these departments. A building which shows these subdivisions and articulates in its fabric is a human building because it lets us live according to the way that people group themselves. By contrast, any monolithic building is denying the facts of its own social structure and in denying these facts, it is asserting other facts of a less human kind and forcing people to adapt their lives to them instead.

(Christopher Alexander, A Pattern Language, Oxford University Press, N.Y., 1977,p469.)



THE HOUSE OF PRAYER

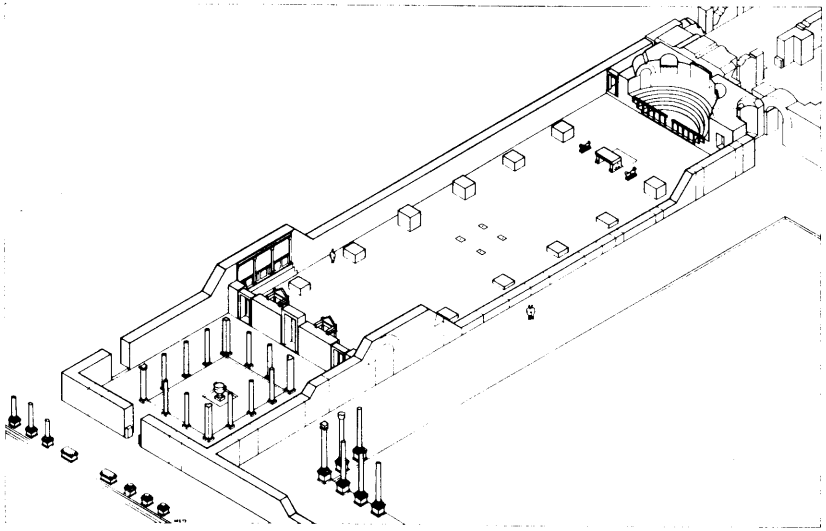
"Prayer in general is of two kinds: the prayer of petition, in which we ask certain things of G-d, and the prayer of praise, in which we praise G-d and worship Him... G-d should not be seen as arbitrarily granting favors because we coax Him. Rather, it is His will that we turn to Him and thus direct our needs to His will. For instance, if we pray for wealth, we must ask ourselves whether we want it soley for our own selfish satisfaction or to use for the betterment of others, too. Similarly, when we ask G-d for knowledge, if we are sincere, we will see the absurdity of such a request to G-d if we do not try to acquire knowledge. Seen in this light, our prayers are really excercises in self-scrutiny and attempts to be honest with ourselves in the presence of G-d. And then, indeed, we become different people, so that G-d can grant our request, not because He has changed but because

The beginning of faith is not a feeling for the mystery of living or a sense of awe, wonder and amazement. The root of religion is the question what to do with the feeling for the mystery of living. What to do with awe, wonder and amazement.

Religion begins with a consciousness that something is asked of us.

It is that tense eternal asking in which the soul is caught and in which man's answer is elicited.

(Abraham J. Heschel, I Asked for Wonder, a Spirtual Anthology, Crossroads Publishing, New York, 1983, p38)



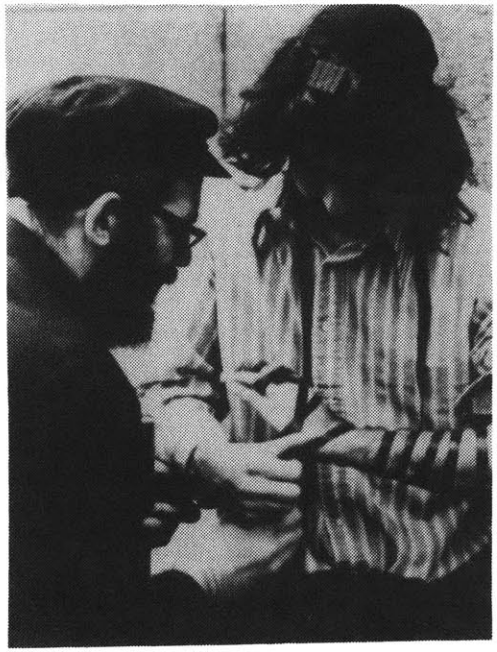
Sardis synagogue, Turkey.
Isometric reconstruction.

we have. If it were not His will to grant the request before, the prayer and its implications may have changed us into the kind of person whose request can be granted" *(Louis Jacobs, The Book of Jewish Belief, Behrman House Inc., N.Y.,1984,p120).*

As stated earlier, my synagogue is composed of surrounding annexes and buildings all culminating into a larger multi-synagogue complex. As is often the case, the principal annex prior to entering the sanctuary is the *vestibule,* for seldom is the sanctuary entered directly from the street or courtyard. "The Talmudic passage in b.Berakoth 8a, telling worshippers to enter the synagogue by two doors, may have a metaphorical meaning but it has generally been taken literally. Thus it requires a door from the outside into a vestibule, followed by a second door into the prayer hall. There may also be an entrance porch. Rabbi

Judah Loeb of Prague said that in the vestibule one dismisses the influence of the mundane world before passing into a holy environment" *(Carol Herselle Krinsky, Synagogues of Europe, The MIT Press, Mass., 1985, p31-32.).* In addition, our vestibule contains a hand-washing basin for the traditional purification before prayer, and a storage room for prayer books, prayer shawls, and tefillin *(phylacteries* that the orthodox wear for morning weekday prayer).

Once leaving the vestibule, on the way to the sanctuary, one traverses a ramped downhill passageway. This passage, too, has its significance, for the Rabbis say it is meritorious to run (that is, to proceed eagerly and in haste) to the synagogue, and equally meritorious to leave it slowly and reluctantly. In this way our ramp permits our descent to the sanctuary to be physically unstressful, while our ascent is laborious and not eagerly anticipated. Finally, upon entering the



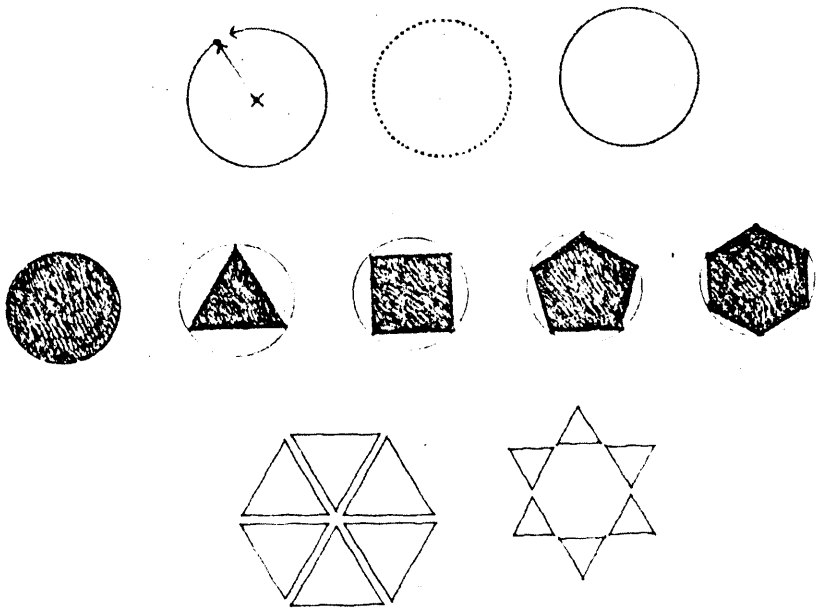
The ancient tradition of tefillin has been passed from generation to generation since biblical times.

Acquiring a palm branch and citron are mitzvot in preparation for the festival of Sukkot.

sanctuary space one is standing lower than the *bimah* (platform) and *ark,* in conjunction with the post-Talmudic tradition that a synagogue's floor should be lower then the bimah so that prayers can rise "out of the depths" *(ps.130:1).*

The famous eighteenth-century authority, Rabbi Ezekial Landau of Prague was asked whether a synagogue has to be oblong or whether it may be octagonal or any other shape. In his reply he proved from the sources that it can have any shape, though he added that on grounds of propriety, the building should not be too ostentatious or flamboyant. It is precisely this lack of flamboyancy that has become a distinguishing trademark of the synagogue. Whether due to issues of propriety or government imposed restrictions, the synagogue has remained unobtrusive on the *outside* but flamboyant and decorative on the *inside.* It is this same concept that has led Chassidim to dress in black garb. The Rabbis

hold that the body, the *outside,* is merely a vessel for the heart and soul -- *the inside.* It is in the inside that one man differs from another, for here each person's individual and unique character resides. So, too, it is with my *sanctuary.* On the *outside* the sanctuary is rather simple -- a perfect *square* with twelve supporting buttresses, symbolic of the twelve tribes of Israel. On the *inside,* however, we discover a new geometry: the *hexagon,* to distinguish it from the outside. The hexagon is clearly the shape symbolic of the *Star of David* and the people of Israel. Also, the hexagon can be perceived as the transformation of the *circle,* a symbol of equality and oneness. For a circle is "a series of points arranged equally and balanced about a point... The circle is a centralized, introverted figure that is normally stable and self-centering in its environment. Placing a circle in the center of a field will reinforce its natural



centrality" *(Francis D.K. Ching, Architecture: Form, Space, and Order, Van Nostrand Reinhold Company, N.Y., 1979, p54-55.)*. So too, those praying in the sanctuary are percieved as a community of equals, unified in prayer toward a singular and all encompassing One.

As is the case in many synagogues, a secondary sanctuary space, or *junior chapel* is a requirement in the design. The junior chapel is used for weekday services of fewer then forty people or small wedding ceremonies. My junior chapel is quite different in design and concept from the main sanctuary to reinforce the idea of both houses of prayer as equal and different.

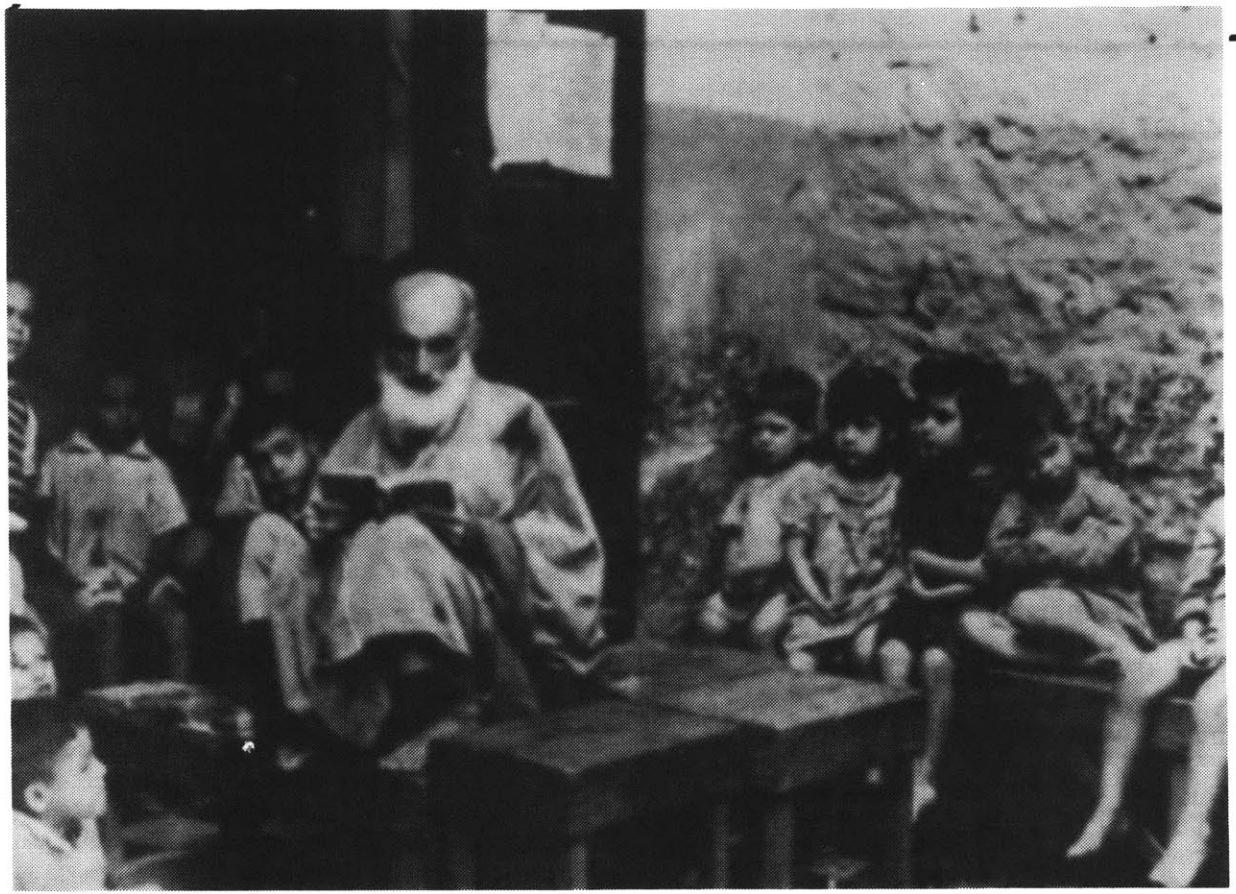
My junior chapel is designed as a *greenhouse* sanctuary. Enclosed by glass on two sides, and facing south, this greenhouse sanctuary becomes a wonderful place, a source of life, a place where flowers can grow, an environment in which we

can be in touch with the nature we are. Wordsworth built his entire politics as a poet around the fact that tranquility in nature was a basic right to which everyone was entitled. He wanted to integrate the need for solitude-in-nature with city living. He imagined people literally stepping off busy streets and renewing themselves in private gardens -- everyday.

It is my hope that this humble *house of prayer* may elevate one's thoughts and feelings and lift the spirit of men toward greater heights of goodness and understanding.

Perhaps, of all the various forms of gossip overheard by the garden, the loveliest is that between a young girl and an old person who are friends. Real friendships between the generations is rare, but when it exists it is of the finest. That youth is fortunate who can pour his perplexities into the ear of an older man or woman, and who knows a comradeship and an understanding exceeding in beauty the facile friendships created by like interests and common pursuits; and fortunate, too, the girl who is able to impart the emotions and ideas to some one old in experience but comprehendingly young in heart. Both of them will remember those hours long after the garden gate has closed behind their friend forever; as long, indeed, as they remember anything that went to the making of the best in them.

(Hildegrade Hawthorne's The Lure of the Garden, New York, The Century Co., 1911.)

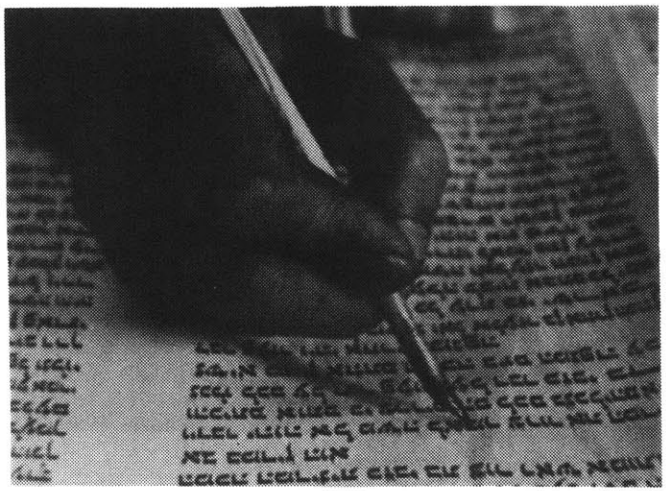


In every Jewish community throughout history, the study of the Torah has been a central pillar of Jewish life. Here in the Jewish ghetto of Casablanca, a teacher studies with his young pupils (1949).

THE HOUSE OF LEARNING

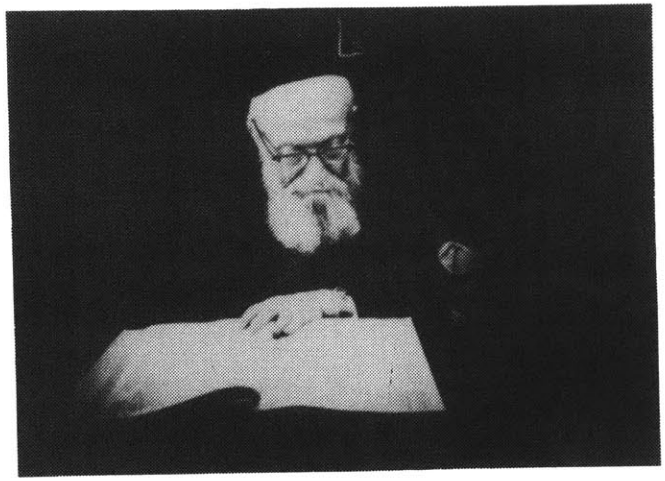
"The word *Torah* has an interesting history. The root of the word is *yarah,* meaning "to shoot,"i.e., at a target. When someone shoots at a target, he is trying to direct an arrow, and so the root meaning of the word *Torah* is that of "correct direction" and hence the word means a "teaching", a "doctrine", or a "law" (the Greek translators of the Bible rendered Torah as *nomos,* "law"). ...eventually the term refered to the Torah, the Torah of Moses (... Genesis, Exodus, Leviticus, Numbers, and Deuteronomy) as the *Sefer Torah,* the "Book of the Torah". Later still, the term *Torah* came to mean the whole of the Bible and eventually all explanations, elaborations, and extensions by the sages of Israel, so that in this sense the Torah means the whole of Jewish teaching. . . " *(Louis Jacobs, The Book of Jewish Belief, Behrman House, Inc. N.Y.,p19.).*

In its narrow meaning, the Torah is the Five Books of Moses. But more broadly, Torah refers to the entire body of Jewish teaching, even to the future words of a Jewish scholar.



Only a skilled scribe is permitted to produce a Torah scroll.

Rav Moses Sofer once heard a man protesting his complete unworthiness, stating that he was unlearned and unworthy of respect. R. Moses Sofer looked at the man and said: "You are not so great that you can afford to be so small."



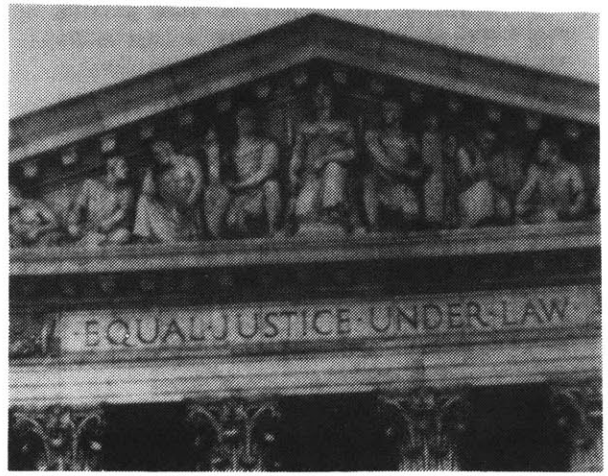
"A scholar whose inside is not like his outside is no true scholar."
(Jewish saying)

The Torah is considered G-d's most precious gift to man. Yet, for all the love and regard Israel has for the Torah, it is never allowed to become an object of worship. That is why Judaism speaks of the *love* of G-d and of the *fear* of G-d, as well as the *love* of Torah, but *never* the fear of Torah, since 'fear' denotes worship. Some Jewish teachers, anxious to avoid any suggestion that the Torah can be an object of worship, even forbid bowing to it. Nowadays, it is the custom to bow to the Torah, but only in respect, not in worship. It is important to point out that Judaism regards the study of Torah and the practice of Torah as one and the same. For study of Torah leads to practice, just as the practice of Torah leads to study.

Today the House of Learning, or *yeshiva,* has taken on many additional roles in Jewish education, both religious and secular. However, regardless of how the House of Learning has changed over the years, some basic aspects have changed very little in over 1500 years. One such unchanging aspect of the House of Learning is the study of the *Talmud,* which still remains primary in the quest for understanding. The author of one of the best Talmudic dictionaries, Marcus Jastrow, rightly notes in his introduction: "The subjects of this literature (the Talmud) are as unlimited as are the interests of the human mind. Religion and ethics, exegesis and homiletics, jurisprudence and ceremonial laws, ritual and liturgy, philosophy and science, medicine and magic, astronomy and astrology, history and geography, commerce and trade, politics and social problems, all are represented there and reflect the mental condition of the

The Six Orders of the Mishnah

1. Zera'im ("Seeds"), dealing with agricultural laws.
2. Mo'ed ("Appointed Times"), dealing with the Sabbath and the Festivals.
3. Nashim ("Women"), dealing with marriage laws.
4. Nezikin ("Damages"), dealing with law proper such as buying and selling, the law courts, and criminal law.
5. Kodashim ("Sacred Things"), dealing with the sacrifical system
6. Tohorot ("Purites"), dealing with ritual impurity in Temple times.



"In a just society, the claims of the criminal to prey upon others must be rejected in favor of society's right to protect itself."
(The Talmud)

One story about love for Torah is that of Rabbi Akiba. During the Roman persecution of Jews and Judaism at the end of the first century, the Romans decreed that whoever taught the Torah would be put to death. Akiba continued to teach and when warned of the danger, answered with his famous parable: A fox wishes to entice fish out of the water onto dry land, and he pointed out the dangers they faced in the water. "O fox," they replied, "they say you are the cleverest of beasts. Verily you are the most foolish. If we are in danger, as you say, in water, our natural element, how can we survive on dry land, which is so completely foriegn to our nature?" The Torah is frequently compared in Rabbinic literature to life-giving water. The Torah is the Jew's natural element. There are to be sure, risks in living the life of Torah, but without it there is no life. Akiba was eventually caught teaching the Torah and sentenced to death by torture. Akiba was seen smiling as he suffered martyrdom.

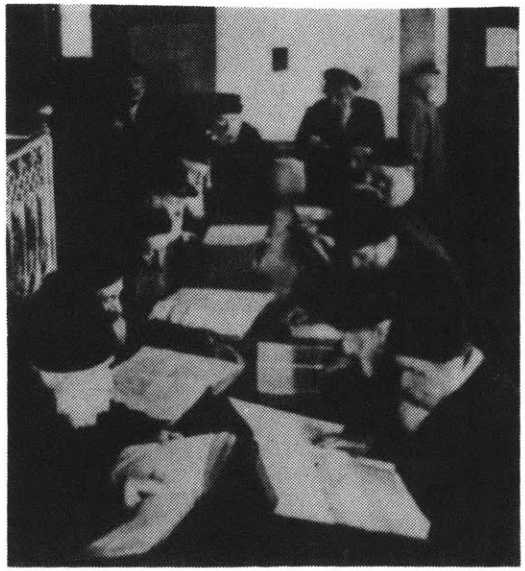
"The solution to every problem is contained within itself. Its plan, form, and character are determined by the nature of the site, the nature of the materials used, the nature of the system using them, the nature of the life concerned and the purpose of the building itself. And always a qualifying factor is the nature of the architect himself."
(Frank Lloyd Wright)

Jewish world in its seclusion from the outside world, as well as in its contact with the same whether in agreement or opposition." Remember, the Talmud and its commentators are but a part of a larger body of work called *Torah.* For good reason it is said that "the student is never 'wise' but always a disciple because the 'sea of the Torah' has no visible limits".

With all of this in mind, how can we express this endless quest for understanding in our *House of Learning?*

Perhaps a solution can be found within the very *act of study* itself.

Having spent a greater part of my life studying Torah from the texts, both at home and in yeshiva, I have come to notice a very special relationship between the *student* and the *Torah.* In yeshiva, in addition to lectures and class discussion, there is a period of time, both during and after class, designated for group study. These small groups are refered to as a *Chevrusa* - from the Hebrew root *Chavar* meaning friend. It is in these friendly groups that the joy of debate and argument, of solving difficult problems with keen logic and legal subtleties is engaged. It is this mind-engaging debate that is the very *core* of study in the House of Learning. While the bond between students in the chevrusa is a strong and dynamic one, each comes to understand the Torah from his own perspective limitations. For this reason, no matter how many students may make up a given chevrusa, they all *must* share a



Loving thy neighbor is a high religious imperative, but what is the law if more than one neighbor needs help? Are there rules of precedence? There are many such rules in the Talmud. In one halakhic discussion a man is faced with two people in difficulty. One of them, his enemy, is struggling to load a burden on his animal, while the other, his friend, is struggling to unload a too-heavy burden from his animal. Normally, preference should be given to the man who is unloading because both human being and animal are in distress. Nevertheless, the Talmud states, he should give preference to his enemy. Every act which turns an enemy into a friend and which encourages neighborly feelings, even toward those one dislikes, is to be preferred over a simple act of good neighborliness.

Aleph א	42,377
Beth ב	38,218
Gimel ג	29,537
Daleth ד	32,530
Hei ה	47,754
Vav ו	76,922
Zayin ז	22,867
Ḥeth ח	23,447
Teth ט	11,052
Yod י	66,420
Kaph כ	37,272
Final kaph ך	10,981
Lamed ל	41,517
Mem מ	52,805
Final mem ם	24,973
Nun נ	32,977
Final nun ן	8,719
Samekh ס	13,580
Ayin ע	20,175
Pei פ	20,750
Final pei ף	1,975
Tzadi צ	16,950
Final tzadi ץ	4,872
Ḳuph ק	22,972
Resh ר	22,147
Shin ש	32,148
Thav ת	36,140
	792,077

Throughout the ages, the scibes have taken great care to make sure that the exact text of the Torah remained unchanged; they even counted every single letter!

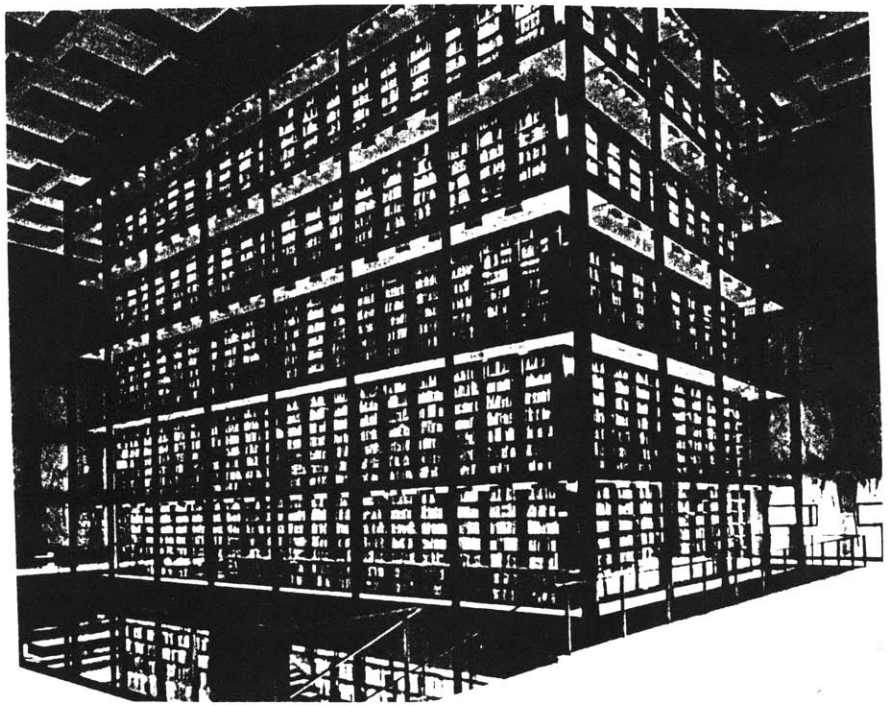
common partner. The partner is a body of knowledge that has been passed down through the generations. The words of great Jewish scholars are avaliable to the chevrusa in the form of *books.* A chevrusa is never limited by the number of students physically present. At that same table sit all the great Jewish scholars spanning over 2000 years. They, too, sit and debate among you, for their knowledge has been maticulously and painstakingly transcribed in these books. For this reason, it is written that even if one studies by himself, he is never truly alone.

This relationship between the student and books is one that I believe to be primary in the quest for understanding and vital in any House of Learning.

In creating my House of Learning, it was decided that one would enter a transition space

prior to entering the classrooms, to heighten the anticipation and consequently sacredness of the place. In our case, the transition space is a three-story Jewish Library open to the public.

In my opinion, the focus of the Jewish Library *must* be the very source of Jewish knowledge today -- the sacred books. Skidmore, Owings and Merrill's Beinecke Rare Books and Manuscripts Library at Yale University captured aspects of this idea. There the books are contained within a transparent seven story box-like structure within the main library space. In this way Yale's rare book collection was clearly the central focus of the library space. However, the Beineke Library was designed with limited access to this collection for security reasons. This limited access would be contrary to Judaism's regard for sacred books. Although the book is to be lovingly maintained, to be useful it must be easily accessible. Therefore,



my library has access to the books at each of the three levels with a ring of reading and study areas at each level in a sense guarding the precious *jewel,* the sacred *books.* The effect of light illuminating the stacks of books from above will, it is hoped, further enforce the *book's* importance as a source of Jewish knowledge. Once past the library space, one enters the classroom area with accompanying outdoor gardens.

"Never keep yourself apart from the community."
(Ethics of The Fathers)

THE HOUSE OF ASSEMBLY

Helping the aged or the infirm is a prime example of the Jewish view of benevolence.

"Eventually we hope to attain the ability to warn others of how to avoid the mistakes we have made."
(Jewish saying)

"The divine will as expressed in everyday activity and daily affairs has sacred implications. The link between heaven and earth forged by the Law is what Talmudic sages had in mind when they permitted devout men to "go" to synagogues and houses of study to watch over public affairs . . . (b.Kethuboth 5a). The outer courts at the Temple had sheltered some commercial activities, but the public activities of a synagogue outnumber them and are more strongly emphasized" *(Carol Herselle Krinsky, Synagogues of Europe, The MIT Press, Mass.,1985, p12).* **It is obvious that Judaism is a very *social* religion. Almost all aspects of Jewish life are related in some way to the Jewish community as a whole. Even one's own self-improvement is regarded as an improvement to the Jewish people as a whole.**

The synagogue has always fulfilled its function as a place of social gathering. Whether it responded by providing meeting spaces, social halls, or a place for physical activity, the synagogue's role as a *House of Assembly* was always regarded as vital to the survival of its people.

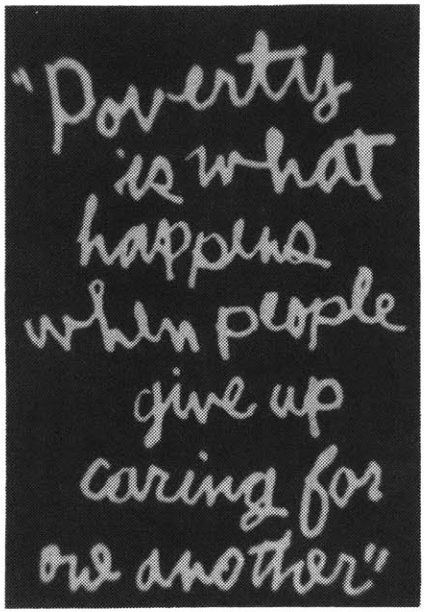
My House of Assembly is situated between two large public gathering spaces. One is the indoor lobby space adjacent to the main ballroom and cafeteria area, and the second public gathering space is an open grass area to be used for outdoor social events and activities. These two *main* public spaces, the indoor lobby and outdoor field, are bridged by a circulation corridor which serves as a *spine* upon which the club spaces and smaller social rooms are attached. This corridor also serves as a social gathering space where those people in the club rooms and social gathering spaces can meet and interact with each other.

There is a well-known tale told in the Babylonian Talmud, tractate Shabbat 31a. A man who wishes to be converted to Judaism declares that he wishes to be taught the whole of the Torah during the time he could stand on one leg. The teacher Shammai would have nothing to do with such an unreasonable request, but Hillel said to the man: "That which is hateful unto thee do not do unto thy neighbor. This is the whole of the Torah. The rest is commentary. Go now and learn (more about it)".

Rabbi Israel Salanter noticed a shoemaker working late into the night. When asked why he worked so late, the shoemaker replied: "For as long as the lamp is burning, one must do the repairs." For the rest of his life Rabbi Israel used to repeat the words of the shoemaker as the most powerful reminder to him to strive constantly for self-improvement: "For as long as the lamp is burning, one must do the repairs."

In designing the House of Assembly, I projected an an image of the corridor as a main communication cable into which smaller communication lines, consisting of the social club spaces, were fed. Like any good network, strong and direct communication lines ensure the clearest transmissions with limited interference. For this reason the corridor appears so strongly in the design. In this way, it helps to create an organized and affective communications network to serve the social neds of the community. Like all communication systems, it must have a starting point and a termination point. In my case, the lobby space and outdoor field serve as the final destination areas. It is hoped that by designing the House of Assembly as an efficient network, the lines of communication within the community will always remain clear and unobstructed.

In the Jerusalem Talmud this story is told of an early teacher of Judaism, Simeon ben Shetah, to illustrate the principle of Kiddush ha-Shem. Simeon ben Shetah was a poor man, unable to devote as much time to the study of Torah as he would have liked because he had to earn a living as a donkey driver. He bought a donkey from an Arab and when he took it home he discovered a precious pearl concealed in the saddlebag. His disciples urged him to keep the pearl, saying that now his troubles would be over. He would be a rich man and able to devote himself entirely to the study of Torah. The disciples held that the Arab was evidently unaware that he had lost the pearl, which he could well afford to lose, and that Simeon would now be able to devote himself to study, which was more important than anything the Arab could do with the pearl. Simeon ben Shetah would have nothing to do with his disciples' specious arguments. "I bought a donkey," he roundly declared,"I did not buy the pearl." And he returned the pearl to the Arab, who exclaimed: "Blessed be the God of Simeon ben Shetah." Note that the Arab praised Simeon ben Shetah's God and not the rabbi himself. His good deed acts as a credit for all Jews.



Rahamanut is the tear shed for the sick and the poor; it should result in action.

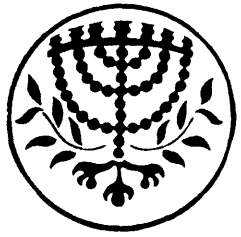
"If I am not for myself, who is for me?
But if I am for myself only, what am I?
And if not now, when?"
(Ethics of The Fathers)

CLOSING REMARKS

This project, while it served as the culmination of my Masters Degree at MIT offered me additional intangible rewards.

To undertake and bring to fruition a design project of such lofty scope and intensity, coupled with deep personal involvement based upon a lifetime of interaction with its subject, brings into play many emotions. Simultaneously, it initiates an intense desire to research in depth a subject so steeped in time and universality as to affect one's very inner core -- *his soul.* Thus, the subject itself, the reason for its selection, and the incentive to present a new interpretation of an ancient subject resurrected on the drawing board, translates into *a labor of sacred love.*

It is hoped that this thesis will in some way be of assistance to architects and aspiring architects as well as to all those who feel the need to consult it for whatever reason. May they derive new insights and a better understanding of Judaism and the significance of the synagogue in Jewish life. Surely, this will serve to retain the special uniqueness of an ancient people and keep their synagogue and religion both *timely and timeless.*



I am the Synagogue

I am the heart of Jewry. I have sheltered you for more than two thousand five hundred years. Through all these cruel ages, swept by wrath of fire and sword, I nursed you with Word of G-d, healed your wounds with the balm of faith, steadied your minds and hearts with visions of the Eternal.

When your fathers wept by the waters of Babylon, I came into the world, summoned by their need. In Persia, Greece and in Rome, in the face of the howling crusaders and in the clutches of the Black Inquisition, in the progroms of Poland and in the concentration camps of the Nazis, I have been, and by my presence brought the living waters of the Eternal to the parched lips of your fathers.

I am old and I am young. I am older than the memories of the historians; and as young as the youngest child.

I bring you peace by teaching you duty. I sanctify you lives with holy seasons. I preserve your heritage. I make the faith of the father, the faith of the children. Behold, a good doctrine do I give unto you; forsake it not.

-Author unknown.

GLOSSARY OF TERMS

Admot Kodesh	Holy ground
Amud	The center table from which the Torah and prayers are read.
Aron ha-Kodesh	The ark, a closet or chest in the synagogue's sanctuary housing the Torah scrolls.
Bet ha-Mikdash	The House of Prayer often referring to the ancient Temple in Jerusalem and later the sanctuary.
Bimah	Raised platform or stage containing the Amud (see Amud) and sometimes Aron ha-Kodesh (see Aron ha-Kodesh).
Chavar	A friend
Chevrusa	A group of friends
Conservativism	A movement often recognized for its emphasis on Jewish history. Followers observe many Jewish traditions but interpret them in a liberal manner.
Dukan	Technically, the platform upon which the Kohanim (Priests) bless the people. Later, it referred to the Priests' benedictions.
Eruv	A demarkation line which defines a space as a private or communal domain.
Halacha	Jewish Law and tradition
Hazzan	Cantor
Kedusha	Holiness
Kohanim	Priests -- as defined by the Bible (see Leviticus)

Mezuzah	(Lit: door-post) Parchment inscribed with sacred passage (Deut,vi.4-9 and xi.13-27) rolled up and inserted in a case and affixed to upperpart of right door-post. A constant reminder of G-d's presence.
Mishnah	An oral teaching which was passed down till the beginning of the third century CE, and later codified by Judah the Prince to become the cornerstone of the Talmud.
Mikdash Me'at	(Lit: miniature sanctuary) Term used to describe the Tabernacle (see Tabernacle).
Mikvah	(Lit: collection) Ritual bath
Musar	Moral chastisement. Teaching of morality and ethics through parables and admonitions.
Neo-Orthodoxy	Modern Orthodoxy -- a synthesis of traditional Jewish thought and secular knowledge.
Orthodoxy	Belief of the divinity of the Bible and its immutability. Follow Jewish Law and tradition in its strict interpretation.
Parochet	Curtain over the ark
Reform	Ethical Judaism. Followers do not believe in the divinity of the Bible. Seek to adapt Judaism to modernity, even if changes directly conflict with basic Laws and customs.
Shofar	The ram's horn -- sounded on Rosh Hashana, the Jewish New Year in commemoration of the attempted sacrifice of Issac by Abraham.

Sulkan Arukh	Code of Jewish Law, codified by Joseph Caro (1488 -1575).
Simchat Torah	Holiday in celebration of the receiving of the Torah.
Sukkot	The festival of booths -- commemorating the Children of Israel's 40-year journey through the wilderness from Egypt to the Promised Land.
Tabernacle	The portable sanctuary which contained the Ten Commandments; it traveled with the Jews from their exodus until the construction of the Holy Temple in Jerusalem.
Talmud	(Lit: to teach) Name of two works which have been preserved to posterity as the product of the Palestinian and Babylonian school developed from the third to the fifth century CE.
Tefillin	Phylacteries, placed on the forehead and arm during morning prayers as a reminder of committing one's self mentally and physically to G-d and humanity.
Tevah	The ark (see Aron ha-Kodesh)
Torah	Name applied to the Five Books of Moses; Genesis, Exodus, Leviticus, Numbers and Deutoronomy, sometimes refers to all Jewish literature.
Torah sh-be-khetav	The written Torah, the Five Books of Moses.
Torah sh-be-al Peh	The oral Torah. The oral tradition passed down from the time of Moses until today (today it is written down).

Tzitzit	Fringes placed on a four-cornered garment as a reminder of all Biblical commandments.
Yeshiva	Academy of learning -- often combining religious and secular studies.
Zionism	Movement whose aim was and continues to be the re-establishment and preservation of the Holy Land as a Jewish State.

BIBLIOGRAPHY

Alexander, Christopher. A Pattern Language. New York: Oxford University Press, 1977.

Alexander, Christopher. The Timeless Way of Building. New York: Oxford University Press, 1979.

American Jewish Heritage Society. Two Hundred Years of American Synagogue Architecture. Waltham, Mass: The Rose Art Museum, Brandeis University, 1976.

Architectural Graphic Standards. New York: The American Institue of Architects, John Wiley and Sons, 1981.

Babylonian Talmud. London: Soncino Press, 1936.

Batkin, Stanley. Let Them Make Me a Sanctuary. New York: Behrman House, Inc., 1978.

Berkowitz, Eliezer. G-d, Man, and History: A Jewish Interpretation. New York: Jonathan David Publishers, 1965.

Binney, Marcus. Change and Decay: The Future of Our Churches. New York: Macmillan Publishing Co., 1977.

Breffney, Brian. The Synagogue. New York: Macmillan Publishing Co., 1978.

Carlstein, Tommy. Making Sense of Time. New York: Halsted Press, 1978.

Time-Savers Standards. New York: McGraw-Hill Book Company, 1980.

Ching, Francis D.K. Architecture: Form, Space, and Order. New York: Van Nostrand Reinhold Company, 1979.

Code of Jewish Law. New York: Hebrew Publishing Co., 1961.

Dresner, Samuel. The Jew in American Life. New York: Crown Pulblishers, Inc., 1963.

Edwards, Trystan A. Towards Tomorrows Architecture. London: Phoenix House, 1968.

Foley, Mary. Modern Church Architecture. New York: McGraw-Hill Book Company, 1962.

Hayes, Bartlett. Tradition Becomes Innovation: Modern Religious Architecture in America. New York: The Pilgram Press, 1983.

Heschel, Abraham J. Between G-d and Man, An Interpretation of Judaism. London: The Free Press, 1959.

Heschel, Abraham J. I Asked For Wonder, A Spirtual Anthology. New York: Crossroads Publishing, 1983.

Israelowitz, Oscar. Synagogues of New York City. Toronto, Canada: General Publishing Company,LTD., 1982.

Jacobs, Louis. The Book of Jewish Belief. New York: Behrman House, Inc., 1984.

Jacobson, B.S. Meditations on the Torah. Tel-Aviv, Israel: Sinai Publishing., 1964.

Jerusalem Bible. Jerusalem, Israel: Koren Publishers Jerusalem LTD.,1983.

Jones, Cranston. Architecture, Today and Tommorow. New York: McGraw-Hill Book Company, 1961.

Krinsky, Carol Herselle. Synagogues of Europe: Architecture, History, Meaning. Cambidge, MIT Press, 1985.

Krinsky, Jeannette. Houses of G-d. Chicago: The University of Chicago Press, 1966.

Kultermann, Udo. New Architecture in the World. Boulder, Colorado: 1979.

Lynch, Kevin. Site Planning. Cambridge, Massachusetts: The MIT Press, 1984.

Mason, Ellsworth. Mason on Library Buildings. New Jersey: The Scarecrow Press Inc., 1980.

Mazmanian, Arthur B. The Structure of Praise. Boston, Mass: Beacon Press, 1970.

Paine, Robert Treat. The Art and Architecture of Japan. Baltimore, Maryland: Penguin Books, 1955.

Piechotka, Maria. Wooden Synagogues. Warsaw: The Institute of Polish Architecture of the Polytechnic of Warsaw, 1959.

Pierson. William H. American Buildings and Their Architects. New York: Doubleday and Company Inc., 1961.

Pennick, Nigel. Sacred Goemetry. New York: Harper and Row Publishers, 1980.

Pentatuch and Haftorahs. London: Soncino Press, 1969.

Recent American Synagogue Architecture. New York: The Jewish Museum, Meriden Gravure Company, 1963.

Shear, John Knox. Religious Buildings for Today. New York: An Architectural Record Book, F.W. Dodge Corp., 1957.

Wischnitzer, Rachel. The Architecture of the European Synagogue. Philadelphia: The Jewish Publication Society., 1964.

Yankes, Henri. The Future of Time: Man's Temporal Environment. New York: Anchor Books; Doubleday and Company, 1972.

Wiesel, Elie. The Oath. New York: Schocken Books, 1986